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ROUTES

IN



AFGHANISTAN SOUTH-EAST.

GENERAL STAFF, INDIA. 1912.

Catalogue No. A-63.

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The event of operations in Afghanistan

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FIRST EDITION, 1906. SECOND EDITION, 1912.

TO

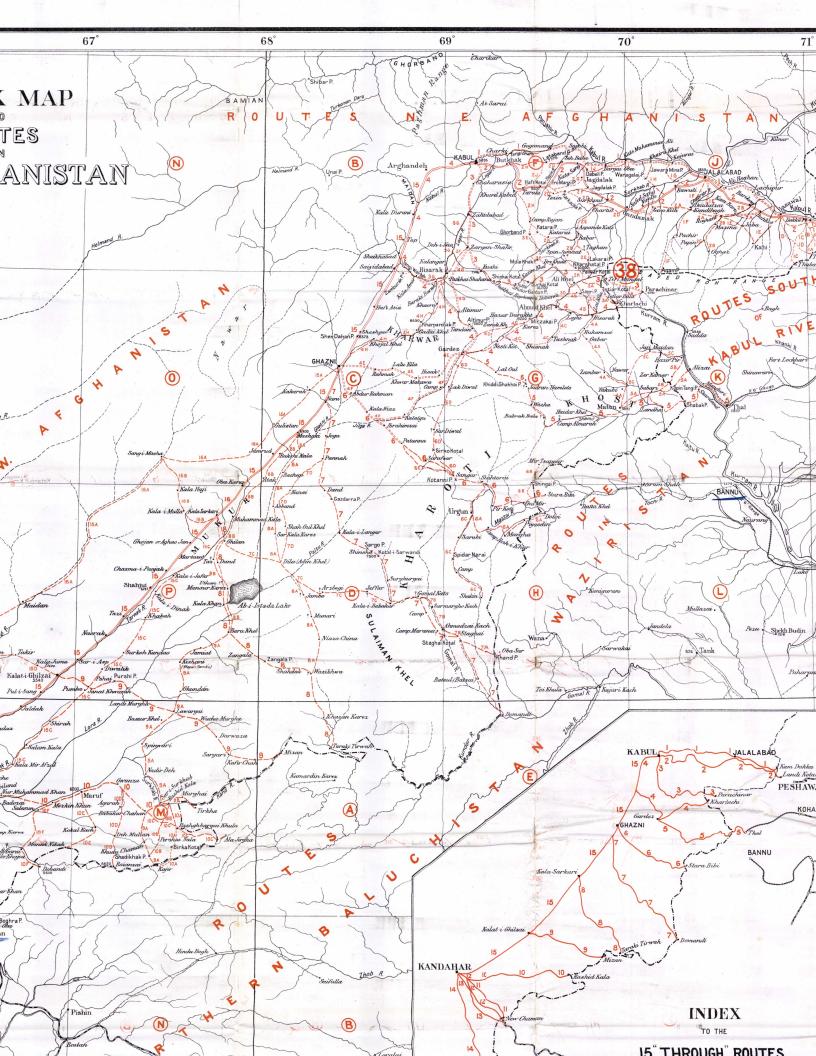
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ROUTE No. 1.

· ·

KAM DAKKA TO KABUL.

Viâ the Kabul river route and the Tangi Gaaru.

 $132\frac{1}{4}$ miles.

13 stages.

Authority.—2nd Afghan war records, 1879-80; Malleson, 1905; Hayden, 1907; and various reports up to 1912, mostly native.

Epitome.

General description.—This route is one of the main through routes from India to Kabul. It connects at Kam Dakka with Routes South of the Kabul River, Route No. 1.

Road.—First 5 miles mule road, then metalled road 24' with 12' to 16' metalling to Basawal (stage 2); thence disused, unmetalled cart road about 10', made by the British in 1880, to Jalalabad (stage 5); first 8 miles after Jalalabad, i.e., to the Darunta bridge, metalled road, 24' as above; thence to Gogamand (stage 11), at the eastern entrance to the Tangi Gharu, unmetalled cart track; road through the Tangi Gharu at present (1912) only fit for camels;* last stage to Kabul good, unmetalled cart coad 24' wide. This route follows the Kabul river throughout, with the exception of a section of 15 miles in the 10th and 11th stages, where the departure of the road from the river bank is due to the road making a short cut and following the chord of a loop made by the river, N. of Sarobi (stage 10).

The following obstacles are encountered:—

(1) Darunta hill, opposite the gorge in stage 6; the ascent and descent of the Darunta spur of the Siah Koh was up to 1908 very difficult, the road was rough with very

(2) Bridge over the Maroda (Pari Dara) gorge in stage 10 at point where the road leaves the Kabul river; bridge was a weak, wooden bridge, easily destroyable, unsuited for regular passage of carts. It is probable that a new bridge would have to be built at this point.

(3) Tangi Gharu gorge in stage 12; quite impassable for

carts, vide description stage 12.

Route open throughout the year.

Camping-grounds.—For a division at all stages except—

(i) at Kajurai, stage 6, no details;

(ii) at Kats Muhammad Ali, stage 8, for 1 infantry brigade with proportion of divisional troops only.

(iii) at Gogamand, stage 11, for 3 battalions only.

Water.—For a force of any size from the Kabul River throughout the route, with the exception of Sarobi (stage 10), where there is water sufficient for a division f om the Tezin River.

Fuel.—Scanty throughout, except at Sarobi (stage 10), where it is reported to be plentiful, due probably to the fact that the heights flanking the Tezin and Maroda (Pari Dara) valleys are wooded. In the vicinity of both Jalalabad and Kabul fuel is very scarce.

Fodder.—Grass scarce throughout; khasil daily in March and April for horses of a cavalry brigade from stages 1 to 6; bhusa to an appreciable extent from stages 1 to 6, thereafter to Kabul in negligible quantities only; camel grazing scanty throughout, except at Sarobi (stage 10), where it is plentiful.

Supplies.—For troops could not be depended on to any appreciable extent except at Jalalabad (stage 5) and at Kabul, though supplementary supplies to a moderate extent are obtainable from stages 1 to 6, thenceforward in negligible quantities only to Kabul. At Jalalabad about 1,500 maunds of wheat

| No of stage and total dis- tance. | | | DETAILS. |
|--|----------------------|------|---|
| <u>l</u> | DAKKA FORT (1,300'). | 7 m. | Mule road to Loi Dakka 5 miles, thence metalled road 24'. |

Leaving Kam Dakka, direction S.W., the road enters the valley of the Kabul river, keeping along its right bank. The valley is completely commanded by the hills on the S. For the first mile the road runs along the level when it crosses a rocky spur about 400' high by a stiff and slippery ascent and descent. other fairly level and easy mile, after which the path crosses a second spur, which terminates at the water's edge. part of the road is a mere ledge overhanging the river with a drop of about 20' to 30'. At 5 miles Loi Dakka (120 houses, Mohmands and Shinwaris) on the bank of the Chinar nala, an offshoot of the Kabul river. Winter camp for Kuchis and Ghilzais from Lalpura; garrison, 200 khasadars armed with Lee-Metford rifles. Valley at this point is about I mile wide, the hills on the left bank coming close down to the edge of the river, which here runs in several channels, between lowlying islands; width of bed about 400x. In the winter a bridge of boats connects Dakka with Lalpura. It consists of 16 boats, with 12' plank roadway. Mud-walled sarai on the right bank opposite this bridge. At Loi Dakka the road joins the main metalled road from Dakka to Jalalabad along which it continues to Basawal (stage 2). At 7 miles, Fort Dakka; fort in ruins; dimensions 500× by 400×, square trace, enclosed by mud walls 15' high, 4 round bastions on each face; contains several wells. Fort stands close to the right bank of the Kabul river, the town of Lalpura, the headquarters of the Mohmand tribe being on the ennegite bank I 200x distant from the NE

Water.—For a division or more from the Kabul river.

Fuel.—Wood procurable within a radius of 5 miles from the surrounding hills; limited amount of scrub near camp.

Fodder,—No grass for horses. About 3,000 maunds bhusa

obtainable.

Supplies.—It has been calculated that the annual production of wheat and barley from the Loi Dakka lands is about 5,000 maunds. The Lalpura fields probably yield twice that amount. Deducting requirements of inhabitants, it is computed that about 5,000 maunds unground wheat and barley would ordinarily be procurable in this vicinity. The inhabitants of Loi Dakka possess some 300 head of cattle and 700 sheep and goats.

At Dakka fort, Routes 1-A, 1-B and 1-C coming from the S. and connecting with the Bazar valley, join this route.

2 BASAWAL .. 10 m. Metalled road 24'. (1,400')

General direction W. veering to N.W. during last 2 miles.

Road level but stony; it crosses Dakka plain for $\frac{3}{4}$ mile when it enters the Khurd Khaibar pass through which it runs for 1 mile emerging on a small, sandy plain. Pass narrow but has been widened to allow the metalled road, through it, to maintain its uniform width. A small fortified post 100^{\times} to the S. of the road commands the summit of the pass. At $2\frac{1}{2}$ miles road emerges on to the Girdi plain and thence runs parallel once more with the Kabul river (which flows about $\frac{1}{2}$ mile to the N.) crossing several dry water-courses. From $3\frac{1}{4}$ to 4 miles the road runs through low sandstone hills which command it on either side; it is also commanded by a large isolated hill further to the S.; at $3\frac{3}{4}$ miles, nala 600^{\times} broad is met with; no banks to speak of, and dry in February 1911. At 4 miles Moh-

the Chinar nala at 6 miles, and passing the Gurraki Obo spring at 8 miles. This road could easily be made into a cart road and is at present fit for all classes of transport animals (1912).

At 4½ miles, hills again approach the road which runs for ½ a mile over a col, commanded on both sides by low hills; a détour by the river bank, thus avoiding these hills, is possible

in dry weather.

The road continues for 3 miles along the foot of the hills, a well-cultivated plain bounding the road on the N.; at $5\frac{1}{2}$ miles a short cut to Hazarnao, a track across the plain is passed. At $7\frac{3}{4}$ miles the large straggling Mohmand village of Hazarnao (900 houses) divided into 2 portions by a nala 400' broad. Here there is a:—

Camping-ground.—For a division or more between the road and the river bank 1 mile distant.

Water.—For a force of any size from the Kabul river, and from several water channels near camp.

Fuel.—Very scarce.

Fodder.—Plenty of grass except in winter; khasil for horses of a cavalry brigade daily during March and April; camel grazing scanty.

Supplies.—It has been estimated that the inhabitants possess 2,500 head of cattle, 1,500 sheep and goats, and 200 buffaloes, and that the annual production of wheat and barley is 170,000 maunds.

From Hazarnao the road crosses stony bed of a dry stream and at 9 miles ascends to the Ningrahar plain, the hills to the S. falling back entirely. Cultivation continuous along bank of river from Hazarnao to Basawal, which is reached at 10 miles. Basawal consists of a collection of Mohmand villages comprising about 1,000 houses in all.

requirements of a division for at least 2 or 3 days could be collected with the assistance of the inhabitants; also khasil daily for the horses of a cavalry brigade during March and April.

Note.—At Basawal Route 1-D coming from the S.E. and

connecting with the Bazar valley joins this route.

From Basawal Route 1-E alternative route to Jalalabad viâ Pesh Bulak and Kahi branches off S.W.

At Basawal Routes 1 and 2 are contiguous.

LACHIPUR .. 12 m. Unmetalled cart road 10'.

At present (1912) the road is not passable by carts; it has been cut away in places by the river and requires repairing.

General direction N.W. Road crosses open, stony country for 1½ miles when rocky hills are reached, which skirt the road on the N.; at 2 miles enter small pass, \(\frac{1}{4}\) mile long and 350× wide, no difficulty; at 2½ miles site of brigade camp in 1880, water supply from 3 karezes which were reported dry in April 1905; at 23 miles, road again emerges from the hills on to a sandy plain which extends to Chardeh Tope, reached at 6 miles. At 4½ miles, an unmetalled cart road leaves this route and runs due S. to Pesh Bulak, 5½ miles distant; a similar road coming from Batikot (4 miles to the S.W.) in stage 3 of Route 2 crosses the road here and proceeds to Ambar Khana, ½ mile distant on the river bank. At 6½ miles, shrine and well of Pir Kamal Baba; 100× from the shrine there is a ruined Budhist tope on a steep isolated hill 250' above the plain. At the foot of the hill, a small enclosure sufficient for a half squadron cavalry. Excellent site here for a camping-ground. Details as follows:

Camping-ground.—For a division on the plain.

Water For a force of any gize from the Kahul iver 1 mile

At $7\frac{1}{2}$ miles nala* 15× broad, banks 20' high, bottom sandy, depth of water 6". At $7\frac{3}{4}$ miles walled village of Ghaziabad (500 houses), inhabitants chiefly weavers, possessing about 1,500 head of cattle, 1,200 sheep and goats, and 200 buffaloes; no cultivation.

At 8 miles, about 500× to the E. of the road the walled Barakzai village of Chardeh (400 houses), elevation 1,822'. Annual production of wheat and barley 22,000 maunds. Inhabitants possess about 1,200 head of cattle, 1,500 sheep and 50 buffaloes; winter camp of Mandezai Kuchis with their camels. Garrison 400 khasadars. From here an unmetalled cart road running nearly due W. connects this route with Route 2, viâ Barikao, distance 8 miles. At 8 miles Tirahi Chardeh nala. breadth 100×, bottom sand and gravel, very little water in summer, easy gradients in and out of the nala. At 9 miles, ravine 30× broad, banks 9 feet, gradients steep. At 91 miles Mashwani (60 houses); inhabitants possessed in 1904 about 300 head of cattle, 500 sheep. At 11 miles, nala, 80× broad, practically dry, gradients gentle. At 113 miles, small nala, banks 15' high, usually about 1' of water. Descent by 2 steep cuttings, ascent by 1 steep and 1 gentle cutting. At 12½ miles, rugged hills 200' to 600' high commence on the W. of the road, which runs along their base, passing here an abandoned fort. At 12½ miles the Tajik village of Lachipur (140 houses, 1904), adjoining which is small post and fort built by us in the 2nd Afghan War for a half squadron of cavalry and a double company of infantry, but not now kept up by the Amir.

Camping-ground.—For a division between the fort and the river.

Water.—For a force of any size from the Kabul river, also from a good spring close to the fort.

Fuel.—No details.

Fodder.—No details re grass: bhusa, annual production

from Chardeh 4\frac{3}{4} miles distant as described. Further, a report states that the "country is level and highly cultivated on both sides of the road" whence it can be safely assumed that unground wheat and barley to some considerable extent could be collected with the assistance of the inhabitants during a period of 2 or 3 days.

4 ALI BOGHAN 9 m. 6f. Disused, unmetalled cart road made by the British in 1880; narrow in places with awkward corners. At present only fit for camels, but could be converted into a cart road without much difficulty.

The road follows the course of the river, direction N.W., for about $2\frac{1}{2}$ miles. At $2\frac{3}{4}$ miles it debouches on to the Girdi Kats plain; at $3\frac{1}{2}$ miles Girdi Kats (160 houses), elevation 1,620', inhabitants Mohmands and Dehgans; sarai, built in 1905, at W. end of village. The Dane Mission encamped here in 1904 and 1905. Here there is a:—

Camping-ground.—For a division on the stony plain S. of the village, but the camp is commanded by the semi-circle of hills to the S.

Water.—For a force of any size from the river. Also from a water channel running through the village.

Fuel.—Scanty.

Fodder — For about 5,000 animals for 1 day, according to a calculation made in 1880.

Supplies.—Annual production of wheat and barley about 28,000 maunds. The inhabitants possess about 500 head of cattle and 100 sheep. It is estimated that about 700 jaribs or bighas, i.e., 420 acres, are under cultivation, the principal crops being wheat, barley, jowar, rice, cotton and pepper.

Immediately on leaving Girdi Kats village the road proceeds

and some very awkward corners. The easier gradients, made during 1879-80, have fallen into almost complete disrepair. This stretch of road, as it stands, would be a formidable obstacle for a large force with its wheeled transport and it includes a couple of bridges, the destruction of which would cause much delay. The river here can be crossed by a ford in the cold weather, or by a ferry 4 miles E. of the ford.

At Ali Boghan, a fort was built in 1879 to hold 150 infantry and 32 cavalry, on a fairly strong site commanding the surrounding country. The remains of the huts were still to be seen in 1905, but the walls of enclosure on the right were much breached. All could be easily repaired in a few days.

The valley in the vicinity of the river, and wherever irrigation is available, is richly cultivated.

Camping-ground.—For a division.

Water.—For a force of any size from the river.

Fuel.—Scanty

Fodder.—A limited supply of grass procurable in the vicinity; considerable amount of bhusa could be collected within 24 hours; camel grazing scanty.

Supplies.—From the village itself, 160 head of cattle and 2,500 sheep, and as the valley here is highly cultivated, unground wheat and barley to some considerable extent could be collected within 1 or 2 days.

JALALABAD 7m. 4 f. Unmetalled cart road as before, but first 5 miles at present (1,850'). (1912) only fit for camels.

General direction N.W. At 1 mile cross nala, 250× wide, on far bank of which is the village of Ali Boghan (40 houses). Famous zirrat of Mian Ali near village. Road very heavy and ground broken. At 2 miles an unmetalled cart road run-

Kunar river joins the Kabul river from the N.E. At $7\frac{1}{2}$ miles Fort Sale, $\frac{1}{4}$ mile from the river, built by us in 1879 to accommodate 2,835 men and some 5,000 animals. The hornwork in 1905 was in ruins, but the barracks inside the fort are kept up by the Amir and would accommodate one battalion. Walled sarai built in 1905 outside eastern gate of the town.

Camping-ground.—For a division each on two sites S. and SW. of the fort; neither site has any shade, and would probably be unhealthy owing to being surrounded by irrigated lands. Shady camping-ground for 2,000 men near Amir's place at Wazirbagh 2 miles from the fort and $\frac{1}{2}$ mile from the western gate of the city, approached by a metalled road.

Water.—For a force of any size from the Kabul river.

Fuel.—There are no woods in the immediate vicinity, with the exception of some copses E. and W. of Jalalabad. Fuel is brought in from the neighbouring hills.

Fodder.—About 5,000 maunds bhusa could generally be depended on; khasil for the horses of a cavalry brigade daily during March and Apri

Supplies.—Approximate estimate of food supplies normally available in Jalalabad city are as follows:—

| | | Mds. | | Mds. |
|-----------------|-----|------|------------------|-------|
| Ata | • • | 100 | Wheat (unground) | 1,500 |
| Ghi | | 25 | Barley | 2,500 |
| | | | Rice | 200 |
| Dal | • • | 20 | Maize | 600 |
| \mathbf{Salt} | | 15 | Gur | 150 |

Jalalabad city consists of an irregular quadrilateral, perimeter 2,100×, enclosed by a mud wall. It is divided into 4 unequal parts by streets running from the 4 gates. The walls, about 16' high and 16" thick near the gates, are in good

are being encouraged and assisted to build themselves suitable residences. The Amir has built himself a palace and garden ½ mile W. of the town called the Wazirbagh, containing 2 large tanks. This would form an ideal headquarters for an army of occupation. A metalled, motor road running completely round Jalalabad with an approach to the Wazirbagh, was made in 1912, early in which year the first report that an arsenal existed was received. Jalalabad is one of the chief cantonments in Ningrahar. Garrison in 1911 consisted of—

2 regiments of infantry ('Awal' and 'Dwama' Regiments), each 600 strong.

1 regiment of cavalry (Ningrahara Risala) 400 strong.

I field battery (Kabuli battery). Six M.L. guns. Also 300 khasadars. Practically the whole of this garrison proceed to Agam in the summer.

The river at Jalalabad runs in 2 channels of which the southern is the larger. In the winter of 1904-05, the water was 8' to 16' deep. Current moderate and several fords in the vicinity existed. In the same year there was a rope ferry, immediately opposite the Wazirbagh, across the river, with one large boat with a carrying capacity for 30 people in each channel. During the Afghan War 1878-80 there was a regular raft service between Jalalabad and Dakka, as a supplement to the land transport and during this campaign Jalalabad was always the headquarters of a strong brigade and occasionally of a division.

The following routes converge on, or radiate from, Jalalabad. Route 1-E. alternative route from Basawal (stage 2) viâ Kahi.

Route 1-F. the Agam pass through Ningrahar.

Route 1-G. to Kats Laghman viâ the Jawara Miana pass.

Route 2 to Kabul viâ Gandamak and the Khurd Kabul defile.

At Baladeh the new motor road (Route 2) which has run due W. from the western gate of the town, $2\frac{1}{2}$ miles distant, meets this route but immediately branches off S.W., the present route running N.W. At 6 miles the Surkhab river is crossed 1 mile before its confluence with the Kabul river by a bridge with wooden piers which was repaired in November 1911 to render it passable by the Amir's motors.* At 8 miles the Darunta gorge. Here the main Jalalabad—Tigri (Laghman) crosses the Kabul river by a steel suspension bridge, vide Routes in Afghanistan N.E., Route 3. The present route leaves the river bank and ascends the Darunta spur of the Siah Koh by zigzags rising 350' in 720×, mean gradient 1 in 6 with some short lengths 1 in 4; road 9' to 12' broad, extremely rough with very sharp turns; up to 1908 the ascent and descent of the Darunta spur was quite impracticable for carts. It is doubtful whether this portion has yet (1912) been materially improved and made passable for carts. From the exit of the Darunta gorge, the road enters upon the comparatively open plain of Kats Laghman which it traverses as far as Dargai Oba (Stage 9). During the last 4 miles of this stage the road is flanked on the N. by cultivated fields which extend to the river about a mile away, while to the S. it is bounded by the northern spurs of the Siah Koh range along the base of which the road runs. The section of the road from the exit of the Darunta gorge to Kats Muhammad Ali (Stage 8) is a fair cart road passable in all weather, as it runs to a great extent over beds of sand, rock and gravel.

At 14 miles Kajurai (200 houses) opposite the junction of the Kabul river with the Alingar, which rises in the Hindu Kush and flowing due S. joins the Kabul river at this point. The river is crossed by rafts, the main ferry being at the confluence of the two rivers.

Camping ground No datails

Supplies.—The valley on the left bank of the Kabul river in this vicinity is highly cultivated, especially that portion of it lying between the Alishang and Kabul rivers which is studded with fortified villages. It is therefore reasonable to assume that unground wheat and barley, bhusa and probably sheep and goats to a very large extent could be collected on the opposite side and transported across by the existing rafts.

7 KHAIRU KHEL 6 m. Unmetalled cart road 10'.

General direction due W. The road now runs parallel to the river and is never more than half a mile away from it. The route traverses a barren desolate country on the right bank of the river, with decreasing cultivation also on the left. At 2 miles there is a ford across the river, opposite the village of Abdul Rahimzai (on left bank); at 4 miles Surka Khan (50 houses). At 6 miles Khairu Khel (300 houses, inhabitants Nasir Khel Ghilzais); village surrounded by cultivation. River here reported to be usually fordable but in August 1904, it was found to have an average depth of from 5' to 6'.

Camping ground.—For a division, on the plain W. of the village.

Water.—For a force of any size from the river; a canal conveys a good stream of water close to the camping ground.

Fuel.—Scanty.

Fodder.—Khasil in spring probably only for the horses of 1 cavalry regiment for 1 day; bhusa, annual production about 1,000 maunds.

Supplies.—Annual production about 700 to 800 maunds unground wheat.

Route 1-H, one of the connecting routes between Routes 1

the river. At 4 miles a collection of huts known as Girdi Kats on the banks of a stream of good water, a small tributary of the Kabul river. The road thence to Kar Kats (7 miles) is fairly good, running along the foot of some steep hills, infested by marauding bands of Ut Khel Ghilzais. The road passes through Kar Kats (100 houses with small square mud fort) passing under the fort walls. At $8\frac{1}{4}$ miles the Mamozai village of Urmun which consists of 2 hamlets; at 9 miles Kats Muhammad Ali (100 houses, inhabitants Jabar Khel Ghilzais and Tajiks).

Camping ground.—Cramped, probably only sufficient for 1

infantry brigade with proportion of divisional troops.

Water.—For a force of any size from the river which is usually fordable in many places here, though the actual position of the fords changes periodically.

Fuel.—Scanty.

Fodder.—No details; probably negligible except a little camel grazing.

Supplies.—Nothing appreciable.

From Kats Muhammad Ali, Route 1-J., a lateral communication between the 2 main Routes 1 and 2, leads S.W. $vi\hat{a}$ the Dabeli pass, to Kata Sang 1, Route 2, stage 10.

9 DARGAI OBA .. 9 m. Unmetalled cart road 10'. 84 m, 2 f.

General direction S.W. The road follows the right bank of the river throughout the stage. At mile 2 it enters a narrow valley up which it runs to the point where the Dargai stream is crossed by a wooden bridge, $\frac{1}{2}$ mile from Dargai Oba. Country throughout this march is confined, and movement of troops would be limited to the road.

Camping ground.—For a division on the river bank

Road continues along the river bank. At 4½ miles cross by a wooden bridge the Pari dara which joins the Kabul river here from the W. The road immediately then deflects due W. leaving the river, and runs up the valley of the Pari dura to Maroda (9 miles).

The report on this section of the road in 1908 was as follows. "From the point at which the road leaves the Kabul river and rises on to the high cliffs on the left side of the valley of the Pari dara, the road becomes merely a camel track. too narrow for carts and is also in a very bad state of repair, To convert it into a cart road it would be necessary to cut for at least 3' into the hill side which is steep and usually composed of slate, but occasionally of granite. The length of this section is about 41 miles and the present width of the road from 5' to 8. In wet weather trouble would be experienced by landslips."

At Maroda the metalled road (Route 2) is only 1 mile distant to the S.W. From Maroda the road turns N. sharply, and ascends the Sarobi hill, crosses the pass and runs down the far slopes of the hill to Sarobi fort on the Tezin river, 2½ miles due S. of the group of villages known by that name, situated just above the junction of the Tezin and Kabul rivers. Government sarai at Sarobi.

Camping ground.—For a division N. and W. of the fort.

Water.—For a division from the Tezin stream and from springs near the fort.

Fuel.—Plentiful.

Fodder.—Camel grazing plentiful.

Supplies.—Nothing appreciable.

From Sarobi a camel track runs S.W. along the Tezia river to Seh Baba which is in stage 11 of Route 2.

GOGAMAND 8 m. 4 f. Unmetalled cart track, $10\overline{5}$ m, 6 f. 10'.

Water.—For a division or more from the river; also from spring near camp.

Fuel.—A limited amount procurable.

Fodder.—Probably camel grazing for a few hundred camels. Supplies.—Nothing appreciable.

12 CHARKI .. 15 m. Camel road. 120 m,6 f.

Leaving Gogamand, the road at once enters the Tangi Gharu gorge through which the river flows in a narrow bed between cliffs on both sides. At 2 miles, the road runs over a gallery in the face of the cliffs, supported on wooden struts. At 4 miles it crosses to the left bank by first bridge, single span with cement abutments and iron supports, wooden roadway; at 5 miles. waterfall 50' to 60' is passed. At 61 miles the road returns to the right bank by second bridge of similar construction to the first. but with wooden supports. At 91 miles road passes the main waterfall (Mahipar) where the Kabul river leaps some 90' over a ledge and falls into a deep pool below. At mile 12½, the road crosses again to the left bank by a wooden bridge, double span, masonry abutments, with latticed parapets 3' 6" high. Thence the gorge becomes less precipitous and the valley begins to open out.

The report on the road through the Tangi Gharu in 1908 runs as follows. "Although parts of the road are at present suitable for carts these are very limited in extent and the track at and for some miles above the waterfall (Mahipar) is so narrow and in places so steep that in order to convert it into a cart road it would be necessary to resort to extensive blasting. The road below the waterfall has almost completely fallen away. The road is very dangerous at this point and in a normal winter

A camel track connects Charki with Butkhak, 6 miles distant due S., the penultimate stage of Route 2. At Charki there is:—

Camping ground —For a division near the sarai.

Water.—For a division or more from the river.

Fuel.—Procurable to a limited e tent.

Fodder.—For 4,000 animals for 1 day can be collected; this calculation was made in 1880.

Supplies.—500 maunds unground wheat normally available.

13 KABUL .. 11 m, 4 f. Good unmetalled cart road 24'.

General direction W. The road follows the left bank of the river during this march through the rich Kabul valley; road excellent, raised in the centre with deep drainage ditches lined with willows on either side, this is liable, however, to become very heavy after snow or rain as there is no metalling, also the numerous culverts under the road are not in good order. Between Charkhi and the point where the Ut Khel villages commence (6 miles) the soil is water-logged and covered with saline efflorescence. Opposite here on the right bank of the river is the Amir's favourite snipe grounds with a shooting lodge at the head of the swamp close to the foot of the Siah Sang range. To the W. of the Ut Khel villages the road traverses fertile, irrigated land. At 81 miles the walled village of Kala Kasim. A: 9½ miles cross a wide road which leads from Sherpur over the river by the Pul-i-Farangi bridge and thence to the foot of the Siah Sang heights. About ½ mile beyond these cross-roads, pass the cavalry barracks, large walled enclosure 400× by 200×. in front of which are the elephant lines and almost adjoining is the Government distillery. Continuing for about ½ a mile, reach a building occupying 2 faces of a square known as a hospital. Opposite on the right bank of the river is the leather

of the city, on the left bank of the river stand the suburbs of Deh-i-Murad Khani, Andarabai, and Deh-i-Afghan, and beyond these lies the Afghan military cantonment of Sherpur, protected from the N. by the Bimaru Hill. On the W. the Kabul river flows through the gorge formed by the Asmai and Sher Darwaza Hills.

The city is $3\frac{1}{2}$ miles in circumference, and is no longer walled. One gate alone is standing, that on the eastern face, known as the Lahore Gate (Darwaza-i-Lahore).

The lower Bala Hisar has been completely dismantled. The upper Bala Hisar is now kept up as a grain store.

The bridges over the Kabul river at Kabul are 10 in number, viz.—

- (1) Pul-i-Deh-i-Mozang; brick.
- (2) Workshops bridge; footbridge.
- (3) At Bagh-i-Alam Ganj.
- (4) Pul-i-Shah-i-Dushamshira; narrow brick bridge connecting city with Chandawal quarter; fit for all arms in 1880.
- (5) New (trestle) bridge connecting Arg with Timur's tomb.
- (6) Pul-i-Khishti; brick bridge connecting Deh-i-Murad Khani with the city; fit for all arms in 1880.
- (7) Pul-i-Bagh-i-Ali Maidan, connecting Arg and Kotwali with transport lines and Idgah mosque.
- (8) Pul-i-Mahmud Khan; stone bridge connecting Sherpur with Bala Hisar, fit for all arms in 1880.
- (9) New bridge connecting leather factory with hospital.
- (10) Pul-i-Kala-i-Muhammad Umar; wooden bridge connecting S.E. portion of Sherpur cantonment with road to Butkhak, passing N. of Siah Sang spur. Fit for all arms in 1880.

All bridges except No. 2, are presumably fit for all arms

mosques are the Masjid-i-Safed, Madrasa, Masjid-i-Pul-i-Khishti, and Masjid-i-Bala Chauk. The burial places are all outside the town.

The Amir's fortified palace, or Arg, as it is locally called, is situated in well timbered grounds ($\frac{3}{4}$ mile by $\frac{1}{2}$ mile in area), N. of the city between Alam Ganj and Sherpur. The Arg grounds are partly enclosed by an iron garden railing and partly by a wall. There are 2 gateways—one facing Alam Ganj, the other facing E. Round the walls of the outer enclosure and facing inwards, are the various Government offices. The Arg itself is surrounded by a wet ditch; width at top, 60'; breadth of water, 30'. This most is crossed by a solid brick bridge, not a drawbridge.

The Arg is a massive structure about 250× square, and some 50' from the bed of the moat; it has 3 bastions on each face, upon which guns are mounted. The walls are of immense thickness, and loopholed for rifle fire. At the top, built into the wall, and on the inner side, are store rooms, and the barracks of the Household troops which alone garrison the fortress.

The Arg is said to contain a vast armoury of weapons of all kinds, including some 300 pieces of artillery, many of them of modern design. 41 modern guns are said to be mounted on the bastions (1910).

In the outer enclosure of the Arg stands the public Durbar Hall, the inside measurements of which are, length 190', breadth 60' and height 30'. The Arg is kept in perfect repair.

The various workshops, including the Arsenal, are situated on the left bank of the Kabul river, right in the Deh-i-Mozang gorge. Not only is war material, including heavy ordnance, turned out in these factories, but also leather and other kinds of work (such as saddles, cartridge pouches and transport carts).

The change in the external aspect of Kabul since its evacuation by the British in 1880 is not very great. The place can now

The Sherpur cantonment is full of troops, and does not appear to have been much altered since the war, except that the parapets and portions of the wall are in bad repair.

The forts built by us during our occupation, on the hills roun Kabul, appear to be carefully kept up and occupied by

Afghan troops.

Camping ground.—Several, for a total of 4 or 5 divisions.

Water supply.—Is good and is derived from wells and also from an excellent canal (amongst several others) called the Jui Sher which is brought from the Paghman hills and joins the Kabul river near Chandawal.

Fuel.—During our occupation of Kabul in 1879-80, fire-wood was obtainable in good quantities, but it has since become very scarce in the neighbourhood of Kabul and now (1912) the bulk of the supply is imported from some considerable distance.

Fodder and Supplies.—General Badcock, Commissary General in Chief during the second Afghan war (1878-80) expressed an opinion that a force of 10.000 men with followers and transport arriving at Kabul at any period of the year would find supplies of wheat, grain and fodder for animals for at least 12 months and a supply of sheep sufficient to meet its requirements. The presence of a force in Kabul, however, during a second year would entail serious supply difficulties. The above figures give an idea of what the country can and did supply in 1879-80, when all food and grain supplies with the exception of ghi, rum and tea were obtained locally and not from India.

ROUTE NO. 1-A.

TSATSOBI TO DAKKA FORT.

14 miles. 1 stage.

ROUTE No. 1-A—concld.

rifles and 80 sabres with mule transport, bivouacked in a grassy plain about 8 miles S. of Dakka and crossed over into the Bazar valley by this route. Nadir Shah is believed to have used this route instead of the Khaibar when he invaded India, and he is known to have largely used camel transport.

Road.—Camel road for 12 miles, thence metalled road 24', no obstacles are met with; route open throughout the year.

Camping-ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 1, Stage 1.

| No. |
|------------|
| of stage |
| and |
| total dis- |
| tance. |

DETAILS.

1 DAKKA FORT .. 14 m. (1,300')

Camel track to 12 miles, thence metalled road 24' to end of stage.

Leaving Tsatsobi, which stands in a well cultivated and partially wooded valley, whence Route 16, Routes South of the Kabul River, branches off N.E. to Landi Kotal, the track enters Chinar nala,* usually dry, down which it runs in a north-westerly direction for 3 miles to Chinar or Chuner (50 houses). Thence it leaves the nala and proceeds N.E. At 8 miles cross Route 1-B. about \(\frac{3}{4}\) mile before it enters the Tarkai tangi. Here track enters Chinar nala once more which it follows to 9 miles, when it finally leaves this nala and heads due N. for Loi Dakka (12 miles). At 11 miles cross Route 2, 1 mile E. of the Garhai Ghakke. From these cross-roads a camel road runs S.E. to Haft Chah 3 miles distant. At 12 miles Loi Dakka,

ROUTE NO. 1-B.

PAINDA KHAK TO DAKKA FORT.

11 miles.

1 stage.

Authority.—Native information, 1912.

Epitome.

General description.—A route forming one of the lateral communications between the 2 main Routes 1 and 2, running from Painda Khak in the first stage of the latter route to Dakka fort, stage 1 of the former route. Road.—Mule road throughout. The following obstacles are encountered:—

- (i) The Darband pass; ascent and descent steep, but quite feasible for laden mules.
- (ii) The Taraki tangi which it ascends for 2 miles; no difficulty.

Route open throughout the year.

Camping ground.—
Water.—

Fuel.—

Fodder.—

Supplies.—

Vide Route 1, Stage 1.

| No. | | | | |
|------------|--|--|--|--|
| of stage | | | | |
| and | | | | |
| total dis- | | | | |
| tanec. | | | | |

DETAILS.

1 DAKKA FORT 11 m. Mule road. (1,300').

Painda Khak, the starting point of this route is a small khasadar post in the Khaibar pass half way between Loi Dakka and Landi Kotal about $6\frac{1}{2}$ miles distant from each place. Leaving Painda Khak the track proceeds S.W. At

ROUTE No. 1-B—concld.

turns almost at right angles N.E. and runs to Dakka fort reached at 11 miles.

 $\left. egin{array}{ll} Camping\text{-}ground. — \\ Water. — \\ Fuel. — \\ Fodder. — \\ Supplies. — \end{array}
ight.
ight. Vide Route 1, Stage 1.$

ROUTE NO. 1-C.

CAMP THABAI TO DAKKA FORT.

1 stage.

18 miles.

Authority.—Bazar expedition, 1878.

Native surveyor, 1908.

Epitome.

General description.—This is a continuation of Route 18 Routes South of the Kabul River, and leads direct from the Bazar valley to Dakka. Road.—Mule road, said to be practicable for lightly laden camels. Traversed by General Tytler's column, accompanied by 2 mountain guns and mule transport in 1878, The track is commanded by precipitous wooded cliffs and in places by fortified homesteads. A difficult pass at mile 15 is the only obstacle encountered. Route open at all seasons of the year.

Camping-ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 1, Stage 1.

ROUTE No. 1-C—concld.

General direction almost due N. Leaving Thabai the road follows an irrigation channel on the right bank of the nala, but the nala bed is also passable for mules. At 1 mile khasadar post of Dur Baba (18 men); post 40× by 30×, walls 18' high, 1' thick at the top; about 300 × higher up the hill side there is a similar but smaller post used by the garrison in the summer. Just beyond the post is the ziarat, round which several houses are scattered, belonging to the Shaikhs of the ziarat and some Mir Jan Khel Shinwaris. Here there is some cultivation. At 5 miles the villages of Sholghar or Shilghar, which are strongly fortified and defended by towers. From Sholghar a track runs N.W. to Pesh Bulak. Leaving Sholghar track leads across waterless, grassy plains to mile 14. At 9 miles Route 1-D from Tsatsobi to Basawal is crossed; there are several cave hamlets near the cross roads. At mile 15, a difficult pass with precipitous sides is encountered. At 16 miles, track turns sharply N.E. and leads direct for Dakka fort reached at 18 miles.

Camping ground.—)
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 1, Stage 1.

ROUTE NO. 1-D.

TSATSOBI TO BASAWAL.

16 miles.

1 stage.

Authority.—Native information, 1912.

Epitome.

ROUTE No. 1-D—concld.

steep gradients. No river, pass or other obstacle encountered. Route open throughout the year.

Camping-ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Nothing appreciable except at Basawal, vide Route 1, stage 2.

| No. of stage and total dis- tance. | | DETAILS. | DETAILS. | | | |
|------------------------------------|-------------------|----------|----------|--------|--|--|
| 1 16 m. | BASAWAL (1,400'). | 16 m. | Mule | track. | | |

For the first 3 miles to Chinar the track followed is part of Route 1-A. At Chinar these routes bifurcate, Route 1-A. running N. to Dakka fort while this route continues N.W. to Basawal. At 7 miles several cave villages and here Route 1-C. from Bazar to Dakka viâ the Thibai pass is crossed. The track then continues along the southern and western slopes of Amarkot which overlooks the Sam Ghakhai pass from the S. At 16 miles Basawal.

Camping-ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 1, Stage 2.

ROUTE NO. 1-E.

BASAWAL TO JALALABAD.

Viâ Kahi.

1 -4----

ROUTE No. 1-E—contd.

Road.—Good camel road, generally over uncultivated plains and hence easily convertible to a cart road as far as Roghani (stage 3). Thence for the last stage to Jalalabad it is reported (1912) that the road has been improved for carts, but not metalled; as far as Hada (10 miles) it is not clear, however, which of the following existing tracks have been improved for carts:—

- (i) Viâ Kahan Kau and Sahibzada.
- (ii) Viâ Kaltarghar and Harban.

Length of both tracks is 10 miles; the former has been followed as it appears to traverse the more populous country, should the latter road have been selected for improvement it is probable that it will be continued to Jaba (stage 2) $vi\hat{a}$ Shershai. In this case, stage 3 would either be at Shershai, 2 miles N.W. of Roghani or at Kaltarghar 4 miles due N. of Roghani, instead of at Roghani as described. The only obstacles that are met with are several nalas and streams, the more important being the Hisarak Rud at stage 3 and the Chapriar stream in the last stage, both of which are liable to cause temporary obstruction owing to 'spates.' Route open throughout the year.

Camping-grounds.—For a division at stage 1, and for 1 infantry brigade at least at remaining intermediate stages.

Water.—For a brigade at all stages, possibly for a division at Roghani (stage 3) from the Hisarak Rud.

 $\left. egin{aligned} Fuel.- \\ Fodder.- \end{aligned}
ight.$ No details, probably nothing appreciable.

Supplies.—No details, but Kahi (stage 1) is the headquarters of an Afghan brigade and in the vicinity of the Maidanak villages. Jaba (stage 2) consists of a cluster of villages on both banks of the Kot khwar along whose banks to the southward are other

ROUTE No. 1-E.—contd.

| No. of stage and total dis- tance. | | Ι | ETAILS. | S. | | | |
|------------------------------------|------|-----|---------|-------|-------|--|--|
| 1 | KAHI | • • | 11 m. | Camel | road. | | |

Leaving Basawal the road runs S.W. and crosses an open and mostly uncultivated plain. At 4 miles it crosses a broad nala formed by the confluence of 3 mountain streams; nala usually dry, stony bed, banks moderate gradient. At $4\frac{1}{2}$ miles Pesh Bolak (Bulak), group of 7 Dehgan villages, largest group containing 400 houses; fortified post; garrison: 2 squadrons cavalry and two (in summer 3) companies infantry. During first Afghan war (1841) there was a detachment of jazailchis here under Captain Ferris. Leaving Pesh Bolak the road continues S.W. across an open and little cultivated plain. At 10 miles Deh Sarak (80 to 90 small hamlets). Here the Banda khwar joins the main khwar from the E. At 11 miles the Shinwari village of Kahi (150 houses), headquarters of the Kahi Brigade. Cantonment with small bazar of 15 shops immediately to the W. of the junction of the Pekha and Adalkhelo khwars.

Garrison—(1912).—

2 battalions infantry, each 600 strong, armed with Martini-Henry rifles.

1 mountain battery, six muzzle-loading guns for mule trans-

port, establishment 172.

1 cavalry regiment 400 strong.

Camping-ground.—No details but the 'plains' referred to indicate the probability that a division at least could encamp in the vicinity.

ROUTE No. 1-E—contd.

2 JABA .. 7 m. Camel road.

18 m.

Road now runs N.W. At 4 miles Chilgazai (250 houses) on the right bank of nala of that name. A force of about 1,200 of all arms under General Tytler encamped here on the 22nd March 1879, returning from a punitive expedition against the Shinwaris of Maidanak, a group of villages 4 miles due S. of Chilgazai. At $6\frac{1}{2}$ miles cross the Kot khwar; no difficulty. Country throughout the stage is open and passable by all arms, but broken ground is met with N. and S. of Chilgazai. At 7 miles Jaba, a collection of Tirahi villages (largest containing about 100 houses) on both banks of the khwar.

Camping-ground.—For 1 infantry brigade at least.

Water.— For the above force and more from the Kot khwar in which the stream is perennial, though small in summer.

Fuel. - Scarce.

 $egin{array}{ll} Fodder.-- \\ Supplies.-- \end{array}
ight\} \quad ext{Nothing appreciable.}$

3 ROGHANI .. 7 m. Camel road.

25 m.

Leaving Jaba the road immediately bifurcates. The northern arm runs N.W. $vi\hat{a}$ Shershai, a collection of Dehgan hamlets passed at 6 miles and the Tajik village of Kaltaragha (200 houses) passed at 11 miles and rejoins the route at Hada in the last stage, 5 miles from Jalalabad. The southern arm, the present route, proceeds almost due W. across an uncultivated plain; at $6\frac{1}{2}$ miles the Hisarak Rud; easily fordable except after heavy rain when a temporary obstruction might

ROUTE No. 1-E-concld.

Water.—For the above force and more, from the Hisarak Rud and from karez near Banda.

$$Fuel.$$
— No details.

Supplies.—Fairly plentiful. It is probable that unground wheat sufficient for an infantry brigade also grain for its transport animals for 2 or 3 days at least could normally be collected from the surrounding villages.

At Roghani this route crosses Route 2-B running from the Kurram valley to Barikao (Route 2, stage 3).

A camel track runs N.W. from Roghani to Kaltarghar distance 4 miles.

Leaving Roghani road runs N.W. At 4 miles Kahan or Kau (400 houses). At 7 miles small Tajik village of Sahibzada. At $8\frac{1}{2}$ miles cross Chapriar stream, $300 \times$ broad, sandy bottom, small stream of good water, normally easily fordable everywhere but subject to spates.

At 10 miles the Mohmand village of Hada or Ada (400 houses); seat of considerable trade; notorious as the residence of the late Najamuddin (died 1902), celebrated 'Hada Mulla' persistently hostile to the British and cause of several disturbances. Now (1912) residence of his successor Mir Saiyid Jan Badshah.

From Hada road runs due N. to Jalalabad reached at 15

ROUTE NO. 1-F.

CAMP (on the northern side of the) AGAM PASS to JALALABAD.

38 miles.

3 stages.

Authority.—McBarnet, from native information, 1893.

Epitome.

General description.—This route connects at the camping ground on the N. side of the Agam pass with Route 55, Routes South of the Kabul River, and together they form a through route from Parachinar to Jalalabad viâ the Agam pass* (11,766'), the most western and the lowest and easiest of all the passes over the Safed Koh. Road.—Practicable for mules throughout and from Agam to Jalalabad (19 miles) easily convertible for carts. No serious obstacles encountered along the route, which is open throughout the year (but vide footnote regarding the Agam pass).

Camping-grounds.—No details regarding the camps at the

2 intermediate stages.

Water.—For one infantry brigade at least at the intermediate stages, from the Chapriar stream.

Fuel.—Scarce throughout.

Fodder.—Bhusa to a limited extent at stage 2; probably fair camel grazing throughout.

Supplies.—Unground wheat and barley to a limited extent

at stage 2.

No.
of stage
and
total distance.

DETAILS.

ROUTE No. 1-F—contd.

crest of the pass to Agam 4 miles beyond (N. of) Pachir, but Colonel Low, who reached the summit from the Kurram side in 1879, considered that the road on the Jalalabad (N.) side was easier, and believed the route to be practicable for laden mules. Colonel Low also found traces of camel traffic. 15 miles Pachir on a tributary of the Chapriar.

Camping-ground. Water.— Fuel.— Fodder.— Supplies. -

No details, but there would probably be water for 1 infantry brigade from the stream on which Pachir stands.

DAULATZAI 2 14 m. Mule road.

29 m.

General direction due N. to Agam (4 miles), thence N.E. to Daulatzai. Leaving Pachir the road leads through hilly country as for as Agam which stands at a bend of the Chapriar stream at the foot of the Safed Koh and consists of several well-built mud forts and numerous orchards; permanent garrison 400 khasadars. In summer the greater portion of the Jalalabad garrison moves to Agam where new barracks were built, 1910-11. The road now follows left bank of the Chapriar stream passing several fortified villages which generally lie on the right bank and which are surrounded by much cultivation.

At 12½ miles cross Route 2 A, opposite Kandibagh, stage 2 of that route. The Chapriar valley down which the road runs in this stage after leaving Agam, is flanked close to the river on the W. by high hills, but to the E. on the right bank of the river the valley is 1 to 2 miles wide and highly cultivated. miles, Daulatzai, group of fortified hamlets surrounded by culti-

vation; garrison 200 khasadars.

ROUTE No. 1-F-concld.

A new road was reported as being under construction in February 1911 from Daulatzai along the Chapriar stream to Ali Boghan, direction N.E., distance about 12 miles.

3 JALALABAD .. 9 m. Camel road easily (1,950') convertible for cart.

The Road now immediately leaves the Chapriar stream which Flows N.E. to the Kabul river and runs almost due N. and crosses a stony plain for 8 miles; for the last mile it leads through the cultivated fields S. of Jalalabad.

 $egin{array}{c} Camping\text{-}ground.-- \ Water.-- \ Fuel.-- \ Fodder.-- \ Supplies.-- \end{array}
ightarrow Vide Route 1, Stage 5.$

ROUTE NO. 1-G.

JALALABAD TO KAJURAI (KATS LAGHMAN) viâ THE JAWARA MINA PASS.

23 miles.

2 stages.

Authority.—2nd Afghan war records and Routes on the N.-W. Frontier, 1892.

Epitome.

General description.—An alternative route between Jalalabad and Kajurai, stages 5 and 6 of Route 1. Road.—Metalled road for the first 10 miles, then mule track to Jabar Khan (stage 1); thereafter little is known of the road till it joins Route 1 at about mile 21 except that the ascent of the Jawara Mina pass from the S. is impassable for laden animals. For the last

ROUTE No. 1-G—contd.

2 miles the road follows Route 1 to Kajurai (stage 6). The following obstacles are met with:—

(i) In the 1st stage the Surkhab river; ford temporarily

impassable after heavy rain.

(ii) In the 2nd stage the Jawara Mina pass; impassable for laden mules.

Route open throughout the year.

Camping-grounds.—For I infantry brigade at Jabar Khan, the intermediate stage.

Water.—For the above force at Jabar Khan; thereafter there is probably no water till the Kabul river is reached as country is described as desolate.

Fuel.—Scanty.

Fodder.— Supplies.—

No details.

No.
of stage
and
total distance.

DETAILS.

JABAR KHAN .. 14 m. Metalled motor road 24' to Bagh (10 miles), thence mule road.

Road follows the motor road (Route 2) to Bagh (10 miles), passing Charbagh, Mata Bagh and Sultanpur at $4\frac{1}{2}$, 7 and 9 miles respectively; Sultanpur large village with several water mills and numerous orchards. At Bagh (10 miles) the track leaves the motor road and runs due W. striking the Surkhab river at $11\frac{1}{2}$ miles; river at this point is a fast, flowing stream normally 60' broad and $2\frac{1}{2}$ ' deep; quite impassable when swolle, the best ford is about $\frac{3}{4}$ mile E. of the Tajik village of Shamshapur. At 14 miles a few scattered hamlets known as Jabar Khan where there is a suitable but small site for a camp.

Camping-ground.—For 1 infantry brigade.

Water.—For the above force at least from a water channel

ROUTE No. 1-G-concld.

for laden mules; thence to the Kabul river, reached at 7 miles believed to be at least a mule track though not surveyed; last 2 miles metalled road 24'.

Leaving Jabar Khan the road immediately ascends the Jawara Mina pass, by which the Siah Koh is here crossed by steep and difficult zigzags. It takes over 2 hours to reach the summit of the pass (4,800'); rocks and boulders, combined with the seep and difficult road, make this pass impracticable for laden animals, though local bullocks and donkeys (without loads) are frequently driven over it.

From the Jawara Mina the Kabul river is about 5 miles distant, but this part of the route has not been surveyed. For the last 2 miles this route follows the river route (Route 1) to Kajurai (stage 6).

Camping-ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 1, Stage 6.

ROUTE NO. 1-H.

BAWALI TO KHAIRO KHEL (KATS LAGH-MAN).

Viâ the Waragali pass.

18 miles.

2 stages.

Authority.—Stewart, 1880. Routes on the N.-W. Frontier, 1892.

Epitome.

General description.—One of the connecting routes between the 2 main Routes 1 and 2, running from stage 6 on the latter to stage 7 on the former route, $vi\hat{a}$ the Waragali pass. It is the

ROUTE No. 1-H—contd.

Route open throughout the year,

Camping-ground.—For 1 infantry brigade at the intermediate stage.

Water.—For the above force at that stage.

Fuel.—Scanty throughout.

Fodder.—Fair camel-grazing along the route.

Supplies.—Nothing appreciable at Kurram.

| No. of stage and total dis- tance. | | | DETAILS | |
|--|--------|-----|---------|--|
| 1 | KURRAM | • • | 11 m. | Metalled motor road 24 |
| 11 m | | | | to Fatehabad 4 miles, thence camel road. |
| 1 11 m. | KURRAM | | ll m. | to Fatehab |

For the first four miles to Fatehabad, the road follows the main motor road (Route 2) to Kabul, running S.W., across a stony plain. From Fatehabad which is surrounded by much cultivation and many fruit trees, the track strikes due W. across an open plain. At 5 miles cross the Karasu nala, no difficulty, after which the road gradually veers N.W., and passes the hamlets of Baghwani and Barera, about $\frac{1}{2}$ mile E. of the road, at $6\frac{1}{2}$ and 7 miles respect-At 8 miles reach the Surkhab 13 miles E. of the Ghilzai village of Kankrak, road for the last mile being much intersected by water courses. The Surkhab is forded here, banks moderately steep, average width of stream 50', normal depth 2'; ford good and easy, but quite impassable after rain. Immediately after crossing the river the ascent of one of the spurs of the Siah Koh commences; the ascent is at first steep and stony, but lightly laden animals could ascend with difficulty. At 10 miles the road becomes easy and level and follows the right bank of a stream in which there is an abundance of good water. At 11 miles Kurram, a Nasir Khel Ghilzai village near which there is some aultivation and a few mulberry trees.

ROUTE No. 1-H—concld.

2 KHAIRO KHEL .. 7 m. Camel road.

18 m.

The ascent of the Waragali pass is at once commenced. For nearly a mile the road continues easy; it then becomes more difficult for a short distance, and then again the ascent becomes gradual and easy. At 3 miles reach the kotal, (4,400'). The road beyond this has not been surveyed. The descent at first is gentle, but afterwards said to be bad and difficult; it runs down a nala flowing due N. There can, however, be no doubt that it is a practicable route for lightly laden animals, as kuchi camels frequently traverse it. It is in fact the easiest route across the Siah Koh range. This range consists chiefly of granite, and the hills on either side of the pass are steep and destitute of vegetation.

Camping-ground.——
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 1, Stage 7.

ROUTE NO. 1-J.

KATS MUHAMMAD ALI TO KATA SANG.

Viâ the Dabeli pass.

 $22\frac{1}{2}$ miles.

2 stages.

Authority.—2nd Afghan war records, 1879.

Epitome.

General description.—A lateral communication between the 2

ROUTE No. 1-J contd.

(ii) Dabeli pass in the second stage; ascent and descent easy with the exception of the final drop of 300× into the Pari dara defile already referred to.

Route open throughout the year.

Water.—Sufficient for 1 or 2 infantry brigades at Dargai the intermediate stage.

Fuel.—Wood plentiful, at Dargai,

Fodder.—Fair camel grazing throughout.

Supplies.—Nothing appreciable at Dargai.

| No. of stage and total dis tance. | DETAILS. | | | | |
|-----------------------------------|----------|-----|-------|-------------|--|
| • 1 | DARGAI | • • | 11 m. | Camel road. | |
| 11 m. | | | | | |

Turning southwards from the river, the road crosses the long, flat-topped spurs which jut out from the base of the Siah Koh, and for $2\frac{1}{4}$ miles is rough and stony. It then ascends by a steep zigzag for about a mile and winds along the side of the hill above a deep precipitous valley to "Chhota" Dargai ($5\frac{1}{2}$ miles), a small piece of flat ground near a stream commanded on all sides by high barren hills. Zigzag is steep, but this part of the road is otherwise good.

From "Chhota" Dargai the road, here very good, follows the windings of the narrow valley gradually, but steadily ascending, until, at $8\frac{1}{2}$ miles, it reaches the top of the Adrag Badrag pass, estimated at about 4,200' high. From here forts, etc., in Kats Laghman are visible with glasses. In ascending the abovementioned valley the road is entirely shut in on both sides between the two high ridges of barren rocks through which the valley runs. From the pass the road drops quickly down, and a mile beyond reaches a stream of good water in a wide bed,

ROUTE No. 1-J—contd.

Water.—Stream of good water in a wide bed; probably sufficient for the above force.

Fuel.—Wood plentiful close to camp.

Fodder.—Unlimited supply of coarse grass procurable, fair camel grazing.

Supplies.—Nil.

2 KATA SANG .. 11 m. 4 f. Camel road.

22 m, 4f.

From "Bara" (or Loi) Dargai the route follows the banks of a stream for about $3\frac{1}{2}$ miles, over easy gradients and open country, up to the entrance of a defile at a locality named Garband Kai. From Kats Muhammad Ali up to this point the road was much improved by sappers in 1880. From here there is an alternative track to Jagdalak, past the ruby mines.* About $1\frac{1}{2}$ miles up this defile the route branches off to the right and follows the bed of another stream until it reaches the Dabeli or Manzil pass, estimated at 5,600'. This part of the road is also remarkably good; and the gradual ascent which is made to this point the whole way from camp, is quite imperceptible. For the next two miles the road descends by an easy gradient, winding round the face of the hill above the Pari dara defile. It then makes a sudden drop for about 300 yards by a zigzag (very steep and difficult for laden animals) to the stream, which is reached at 7½ miles from Dargai. Here Route 2 is met.

* Leaving Garband Kai this road runs due S. and enters a very rough and narrow gorge, impracticable for laden animals, then crosses some open ground and a low kotal and finally descends into a valley with a stream whose course it follows due W. for 2½ miles to Jagdalak. Length of this track is 7 miles.

Holdich says that "the whole difficulty of the Laghman valley route (i.e., a combination of this route with Routes 1 and 2) to Kabul from Jalalabad may be said to be distributed between its ends—the Darunta defile — and the Dabeli pass. Between these two points the road, as it exists in its unmade condition, offers very unusual facilities to a marching force, (1) from its contiguity to a large river, (2) its easy gradients, and (3) its comparative immunity from attack; a gain which would be much under-estimated by a mere comparison of the highest

ROUTE No. 1-J—concld.

This final, sudden drop is the chief difficulty in the route, being too steep for any but the strongest animals. With time the descent could be made fit for wheels, but the present track cannot be improved and would have to be abandoned, a better track could easily be laid out to the left of the present one.

For the last mile and a half the road follows Route 2, to

Kata Sang.

Camping-ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 2, Stage 10.

ROUTE NO. 2.

LANDI KOTAL TO KABUL.

Viâ Jalalabad and the Khurd Kabul pass.

 $159\frac{7}{8}$ miles.

14 stages.

Authority.—Malleson, 1905; native information, 1911-12.

Epitome.

General description.—The principal through route to Kabul; a cart-road throughout with the exception of stage 2, Loi Dakka to Basawal, where the cart-road is left and the track viâ the Sam Ghakhai pass followed. This departure is made in order to keep Routes 1 and 2 entirely separate and consequently the cart-road for this stage is allotted to Route 1. This route connects at Landi Kotal with Routes South of the Kabul River, Route 6, making a through connection between Kabul and Peshawar. Road.—Stage 1 double cart-road to Landi Khana 3\frac{1}{2} miles, north-

Limousine motor car). Bridges used by 5-ton loads, and probably up to 7 tons per vehicle. One hundred men per stage could ease curves in 6 hours sufficiently for tractor with 2 trailers. Light railway could follow this alignment with little difficulty as far as Jalalabad and possibly Nimla (stage 7). Beyond this, progress would be slow. Amir constantly motors by this road between Kabul and Jalalabad (3 hours). Total distance, Kabul to Peshawar (189 miles), has been covered by car in 8 hours. Only difficulty experienced by motors (April 1911) was on disputed section Landi Khana-Tor Kham (1½ miles), where road has not been made. Sarai, bungalow, telephone office at each stage* between Jalalabad and Kabul.

The following obstacles are encountered:—

(i) In the 2nd stage, the Sam Ghakhai pass (1,700'); very easy.

(ii) In the 9th stage, the Jagdalak kotal (6,200'); maxi-

mum gradient $\frac{1}{20}$.

(iii) In the 12th stage, the Haft Kandao (8,200'); no difficulty.

(iv) In the 13th stage, the Khurd Kabul defile (7,030'); defile 6 miles long, flanked by high mountains, passage difficult in the face of opposition.

Route open throughout the year.

Camping grounds.—For I division at least at all stages except at:—

Jagdalak (stage 9)* .. Camp for 1 infantry brigade with proportion of divisional troops.

Kata Sang (stage 10)
Tezin river (stage 11)
Taraki (stage 12)

Camp for 2 infantry brigades with proportion of divisional troops.

Water.—For 1 division at all stages except at:—

Barikao (stage 3), water for 2 infantry brigades with pro-

Fuel.—Scanty throughout, except at Gandamak an intermediate camp between stages 7 and 8 and Kata Sang (stage 10) where wood to a considerable extent is procurable from the wooded slopes of the northern spurs of the Safed Koh, within 5 miles of camp.

Fodder.—Khasil at Basawal (stage 2), Jalalabad (stage 5) and Sarkhpul (stage 8) for horses of a cavalry brigade daily during March and April; bhusa in varying quantities at every stage, except between stages 9 to 12 where there is nil.—Camel grazing generally negligible; probably for about 500 camels as far W. as Gandamak, and for half that number between Gandamak and Kabul, except during winter when very little is obtainable.

Supplies.—For troops to any large extent cannot be reckoned on, except at Jalalabad and Kabul, though stores of unground wheat and barley in varying quantities are available at every stage, except between stages 9 to 12 where there is nil. Amir maintains 2 days' supplies for 5,000 men and their transport at each stage* between Kabul and Jalalabad. At Jalalabad ata. ghi, dal, rice and unground wheat, barley and maize for 1 division for about a week.

At Kabul supplies for 12,000 men and 10,000 animals for 1 year.

| No. of stage and total dis- tance. | • | DET | AILS. | | | |
|------------------------------------|-----------------|----------|-----------|--------|-------|----------------|
| 1 | LOI DAKKA | 12 m. | Double | cart | road | to |
| | (1,300'). | | Land | i Kh | ana | $3\frac{1}{2}$ |
| 12 m. | , , , | | | ; nort | | |
| metalled wi | th easy grades, | southern | unmetalle | d and | steep | er; |

are also four small tanks for watering animals; dimensions as follows:—

| 1. Covered | ltank | • • | • • | 25	imes20 yards |
|------------|-------|-----|-----|------------------|
| 2. Open | ,, | • • | • • | $50 	imes 16$,, |
| 3. Open | ,, | | • • | 33 	imes 14 , |
| 4. Open | ,, | • • | • • | 32×21 , |

Combined contents of above four tanks=761,350 gallons of water.

Tangi head work tank, 16×18 yards.

Animal watering tanks.

(1)
$$33 \times 1$$
 yard. (2) 43×1 , (3) 8×1 yard. (4) 8×1 , ,

There is a small post of Khaibar Rifles to guard the tanks.

From the tanks road follows N. side of valley, rising generally to Michni kandao* $2\frac{1}{2}$ miles; here to the S. of the road on a knoll about $50 \times$ above the col is Michni kandao blockhouse, with a garrison of Khaibar Rifles.

Road now descends steeply to Landi Khana, passing at 3 miles the ruins of Fort Tytler on a spur to the S. At $3\frac{1}{2}$ miles Landi Khana camping-ground (no houses) situated a few feet above the level of the stream, and accommodation for two battalions only. A little fuel obtainable from the hills in vicinity. Grass in small quantities; water-supply over 100,000 gallons daily, and of good quality. Between Landi Khana and Tor Kham, the road though not properly made, can be followed by wheels without any difficulty, except when at 4 miles it crosses a stony ravine which is difficult for all wheeled traffic. Tor Kham, on the frontier, is reached at 5 miles.†

From Tor Kham to Dakka the road is good and broad; sur-

At 63 miles, Painda Khak post,* held by khasadars from Dakka. The post itself in bad repair and commanded at short range from hills to the N.W. Paper strength of garrison is 100, but there are seldom more than a dozen men on duty in peace-time.

From Painda Khak, Route 1-B., runs N.W., to Dakka fort.

At $8\frac{1}{2}$ miles Haft Chah, a small stone fort for 50 men. It is well sited on top of a conical hill in centre of valley, but in 1905 appeared to be almost in ruins. Small supply of water, sufficient for this garrison, from a spring in a *nala* to the E. about 1,000× from the post, and not covered by it; an alternative supply is from a spring $1\frac{1}{4}$ miles to the N.E.

From Haft Chah a camel track leads over the Gara ridge due N. to Kam Dakka; there is a good spring of water on the Kam Dakka side of this ridge near its foot; troops using this route should take a guide; it may easily be mistaken, as once happened in 1879.

At 9 miles the hills contract again; the road runs through a gap in them, about $100 \times$ wide, and at $9\frac{1}{2}$ emerges on a wide, stony plain, across which it runs for 3 miles. Two small isolated hills a mile to left front here offer a commanding position.

At $12\frac{1}{2}$ miles village of Loi Dakka (100 houses) on the banks of the Chinar *nala*, an offshoot of the Kabul river, distant about 400 yards; it is partly surrounded by a low and half ruined mud wall. A winter camp for *kuchis*. Here the hills approach close to the left of the road.

Camping ground.—For a division S. of the village on an open plain 2 miles long by 1 mile wide, bounded on the S.E. and W. by hills, and on the N. by the Kabul river. The Chinar nala, running N. and S., roughly bisects this plain.

^{*} This post was the scene of frequent raids during the last Afghan War, the raiders using an easy track leading through a gap in the higher hills to the village of Darband and thence over an open plain to Pesh Bulak in Ningrahar. S. of Darband lies the Sisobi (Tsatsobi) pass, leading into the Bazar valley (Route

Water.—For a force of any size from the Kabul river, with a supplementary supply in camp itself from the Chinar, a perennial stream of good water.

Fuel.—Nothing appreciable.

Fodder.—Annual production 7,500 maunds bhusa; camel grazing negligible.

Supplies.—Inhabitants, who are Mohmands and Shinwaris, possess 300 head of cattle and 700 sheep and goats. Annual production of wheat and barley averages 5,000 maunds.

2 BASAWAL .. 13 m. 4 f. Camel road easily convertible to a cart-road.

Leaving camp road runs S.W. At 1 mile, 4 other tracks join in, coming from Dakka, Kam Dakka, Chinar and Dwa Chashma. Road follows the last named and runs over a low watershed, descending by an easy gradient into the bed of the Taraki tangi at 3 miles. Track then turns N.W. down the tangi, the bottom of which is sandy, about 5 yards wide, slopes on both sides gentle. At $4\frac{1}{2}$ miles the track from Dakka to the Sam Ghakhai pass crosses the Taraki nala; road now follows this track which runs S.W. and is suitable for a double line of camels. At 8 miles cross the easy Sam Ghakhai pass (1,700') and bend round the base of the hill N. of the pass to Basawal reached at 14 miles.

 $Camping\ ground.$ Water. Fuel. Fuel. Supplies. $Vide\ Route\ 1,\ stage\ 2.$

At Basawal Routes 1 and 2 are contiguous.

From Basawal Route 2-A. runs roughly W. to Safed Sang in stage 8, forming an important alternative to this section of the present route.

The road now traverses the Batikot plain which is little more than a stony desert, but in winter affords good pasturage and the Ghilzais bring large numbers of camels and sheep to graze here during the winter, returning to the hills in the spring. In summer this plain is swept by a burning hot wind.

At 6 miles Batikot (1850', 800 houses with several mud forts), inhabitants Tirahis, famed for the ziarat of Akhund Musa.—Here there is—

Camping ground.—For a division or more on plain N. of village.

Water.—For 2 infantry brigades from a perennial stream 1 mile W. of the village.

Fuel.—Obtainable in small quantities; chiefly low scrub on the plain.

Fodder.—For about 8,000 animals for one day.

Supplies.—About 1,000 maunds unground grain normally available.

From Batikot Route 2-A. to Safed Sang viâ Kandibagh (Chapriar stream) branches off S.W.

At 9 miles road crosses the Kot khwar, wide ravine with precipitous banks which have been ramped and now made passable for motors. At $9\frac{3}{4}$ miles cross the Hisarak Rud, perennial stream of good water; doubtful as to whether it has been bridged for motors. At 10 miles camp Barikao, $1\frac{1}{2}$ miles S. of village of that name; inhabitants Dehgans and Mohmands. 1 squadron cavalry and 1 company infantry quartered here; winter encampment for Hasan Khel nomads.

Camping ground.—For a division at least on the plain S. of the village.

Water.—For 2 infantry brigades from the Hisarak stream.

Fuel.—Scanty.

Fodder.—A little grass obtainable in the summer; about 7,500 maunds bhusa normally available from Chardeh (2½ miles N.E.):

At Barikao, Routes 2-B and 2-C., which lead to the Kurram valley, come in from the S.

4 CHAPRIAR 11 m. Metalled road 24'.

RIVER.

46 m, 4 f.

Road leads nearly due W. for 5 miles across a stony plain. At 2 miles a low range of hills is met which runs parallel to the road about $\frac{1}{2}$ mile to the S. and continues to mile $4\frac{1}{2}$.

At 5 miles enter the Choragali pass, from the eastern entrance of which an unmetalled cart-road runs due E. to Chardeh, distant 8 miles connecting this route with Route 1. The road through the pass follows the bed of the stream but is completely commanded on both sides by low, rounded hills for half a mile. At 61 miles cross low kotal Sask Diwal or Surkh Diwal from the northern base of which a camel road branches off N.E. to Girdi Kats 6 miles distant, forming another connection with Route 1. The road now follows the course of a nala draining into the Kabul river at Ali Boghan, general direction N.W. At 10½ miles road leaves the nala and at 11 miles reaches the camping ground on the right bank of the Chapriar stream, N. of and adjoining Sarai village. The camp is situated astride of the motor road, on high, commanding ground and would be easily defensible; it is commanded, however, by a hill 1400× to the S.E.

Camping ground.—For a division; camping space N. of the road 1400×1400 paces which can be extended, if necessary, to the Kabul river. Camp S. of the road on wheat fields with shady mulberry trees dotted about.

Water.—For a division; one source of supply from a channel 1' deep by $2\frac{1}{2}$ ' broad, current $2\frac{1}{2}$ miles per hour, yielding 206,230 gallons per hour; this water channel issues from a karez S. of

Fodder.—
Supplies.—
A limited amount of unground wheat and barley and an equivalent amount of bhusa would be normally available; camel grazing negligible.

JALALABAD 5 m. 5 f. Metalled motor road (FORT SALE)

(FORT SALE)

(1950'). t.o.

Leaving camp, road immediately crosses Chapriar stream, bed of stream 300× broad, sandy bottom, with small stream of good water. A masonry bridge was being built at this point near village of Sara Chah Ali Khan in February 1911. Remains of old fort on the E. bank.

From here road continues between sandy hillocks along what was formerly the right bank of the river. At 2 miles cross nala (dry except after rain). Between 3 and $3\frac{1}{4}$ miles the road forks. Route 1 follows the new road, to the right, through the cultivation, while this route keeps the road to the left outside the cultivation.

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At 5\frac{5}{8} miles. Fort Sale.

Camping ground.—

Water.—

Fuel.—

Fodder.—

Supplies.—

6 BAWALI

(ROZABAD).

(ROZABAD).

(2,300'). t. o.
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Leaving the new fort, the road runs for 3 miles across a level, sandy plain uncultivated (with a low range of rounded hills running parallel to it on the S., at a distance of about a mile). At $1\frac{1}{4}$ miles pass city of Jalalabad.

Near the western gate, the old road branches off S.W., the new metalled road following the Tangi Gharu route for 21

to the S., and to the N., the stream, and beyond it a highly cultivated plain much cut up by irrigation channels, and forming, therefore, trappy and difficult ground for troops other than infantry. The whole of the stretch of country along the Surkhab, from below Nimla right down to the Kabul river, is studded with villages and gardens (Charbagh, Matabagh, Sultanpur and others). At 11 miles the hills on the left fall back along the Gujak nala, which is usually dry, and the road enters on a wide stony plain, stretching for several miles.

At $12\frac{3}{4}$ miles the camping ground, near which there is a sarai of the usual pattern, and a bungalow.

Camping ground.—For a division at least.

Water.—For a division or more from the Surkhab $\frac{3}{4}$ mile N.W. of camp; also from several irrigation channels.

Fuel.—Obtainable to a limited extent from short scrub on

the plain.

Fodder.—About 3,000 maunds bhusa normally available; camel grazing negligible.

Supplies.—About 2,000 maunds unground grain generally procurable. Bawali is reported to be a good foraging centre.

The Amir's powder factory at Tatang bears $317\frac{1}{2}$ ° from Bawali sarai distant 3 miles.

From Bawali Route 1-H, a camel track, runs N.W. to Kats Laghman, connecting this stage with Khairu Khel, stage 7 of Route 1.

7 NIMLA .. 12 m, 6 f. Metalled motor road 24'.

Road traverses a stony plain in a S.W. direction. There is a steady rise throughout. Low hills to right of road. At 4 miles the road runs through Fatehabad, a village of some 30 houses which gave trouble during the war.

long, 12' wide. Fort Battye is passed at 7 miles, now in ruins, but the stone walls are still standing and the post could easily be repaired.*

Leaving Fort Battye, two small nalas are crossed by wooden bridges, and at 9 miles the Shadai Rud by a similar bridge. At $10\frac{1}{2}$ miles reach the Nimla nala, which was here crossed by the old road. The new road, however, leads up the right bank to Nimla village (200 houses), reached at $12\frac{1}{2}$ miles. The Nimla valley is highly cultivated and dotted with numerous walled villages.

Camping ground.—For a division on the Nimla plateau near Nimla b a gh.

Water.—For a division from the Nimla nala, and numerous irrigation channels and streams, also plentitul supply of good water, in the bagh.

Fuel.—A limited amount procurable from the neighbouring hills within 2 miles of camp.

Fodder.—For 4,000 animals for 1 day can be collected; little camel grazing.

Supplies.—700 jaribs of land under cultivation, yielding an average annual produce of 44,500 m ands of wheat and other grain including rice and pulse. The Khugiani inhabitants of the villages possess some 500 head of cattle and 500 sheep and goats. The Nimla bagh between the village and the sarai is a fine old garden, said to have been made by Shah Jehan, filled with old plane and cypress trees; garden 400× by 375× surrounded by a high wall. Water enters top of garden and flows throughout its length in a succession of 4 masonry reservoirs 10′ wide with a fall of 6′ between each.

8 SURKHPUL 12 m. 3 f. Metalled motor road 24'.

90 m. 3 f. From Nimla the road

strikes due W. crossing two branches of the Nimla nala and at 1½ miles zigzags up to a kotal. Some of the curves are sharp, and for motor transport, would require trimming. From kotal the road rises gradually to Safed Sang (3½ miles). Height 4,500', or 990' feet above Nimla.

At 4½ miles the old post at Safed Sang now in ruins; no buildings remain, but the walls are in fair repair. It is situated above the right bank of the Marki Khel river. Camping-ground unlimited. Water-supply from the river good and ample; also from a spring near the fort and above the stream Sang commands the whole country on three sides, the remaining side being the one towards Fatehabad. Safed Sang was the site selected for the encampment of the British force in both advances to Gandamak in 1879.

Here Route 2-A, from Basawal comes in.

The road now descends by an easy gradient to the Marki Khel stream and crosses it by a new bridge, which has taken the place of the old ricketty structure crossed by the Dane Mission The river, which is a mere trickling stream in the cold weather, increases considerably in the summer, when it is still fordable but liable to sudden floods from melting snow. Water is of good quality.

At 6 miles cross the junction of the Chashi and Nian Rud streams by a girder bridge.

Hence a steady ascent to Gandamak, reached at 6½ miles, with long stretches of cultivation up to the base of the Safed Koh (September). Gandamak (4,150', 200 houses) lies on both banks of the Gandamak stream (Nian Rud). Inhabitants Sherzad Khugianis. Here there is a:-

Camping ground.—For a division or even two, W. of the village on a plain 5 miles in length lying between the Siah and Safed Kohs. Site of the old British camp during first Afghan

War.

Fodder.—Khasil in March and April daily for the horses of a cavalry brigade; bhusa for 5,000 animals for 1 day normally available; good camel grazing on the plain.

Supplies.—Annual production wheat and barley 34,000 maunds. About 300 head of cattle in the village. Fine fruit gardens and mulberry trees near the village.

From Gandamak Route 2-D, alternative route to Taraki (stage 12), branches off due W.

At 8 miles cross the Khatai stream and at 8½ miles a conical hill called the 44th hill.*

At $10\frac{1}{2}$ miles cross the Bulola stream by a bridge. There is a good and spacious camping-ground here. For the next 11 miles there is a gradual ascent, and thence to the Surkhab river the descent is gradual and easy. The Surkhab (or red river), which is reached at 12 miles, is crossed by an old masonry bridge, 170× long by 6× broad, which was repaired during the war. (With approaches the actual span is about 20× and height above waterway 30'.) Here is Surkhpul where the Durand Mission camped in 1893. Camp for a brigade and proportion of divisional troops in bed and on bank of river. The ground is flat and sometimes under rice cultivation; at certain times of the year, therefore, it would be a swamp. In December 1904 it had dried and was fit for use. Position bad, surrounded by hills. In April 1905 these fields were under water, but there is a limited amount of camping space on the right bank of the Surkhab, below the bridge and close under the hills. This lies high and would always be dry. Water-supply from river.

River here is a fine stream 60' broad in September and running about 3 miles an hour; in December it is 40' wide and from 18'' to 2' deep at the permanent ford, 50 yards below the bridge. In April when swollen by melting snow, $2\frac{1}{2}$ to 3' deep.

Camming ground -For a division with some difficulty see

Water.—For a division or more from the Surkhab. Fuel.—Scanty.

Fodder.—About 1,500 maunds bhusa available; camel grazing negligible.

Supplies.—About 1,500 maunds unground grain normally available.

9 JAGDALAK 12 m. 4 f. Metalled motor road (5,420') t.o. 24.'

road leads N.W., and passes the old British post at Lukhai at 1½ miles. At 3 miles the Pezwan kotal (5,180') is crossed; no difficulty. Pezwan kotal is a commanding postion and a valuable intermediate signalling station; direct communication by heliograph can be established with Gandamak, Jagdalak kotal, or any posts that n ight be chosen on the Karkacha range.

At 4½ miles the road turns due W. up the valley of the Tsinkai

khwar which it follows to the Jagdalak pass.

The Tsinkai khwar is a stony water-rourse with very little water in December, but a good deal in many small channels in April, owing to melting snow.

The road follows the left bank of this nala, occasionally

crossing low ridges to cut off angles.

Low hills sparsely sprinkled with stunted ilex bushes stretch away to the S., and somewhat similar ground lies to the N.* merging eventually in the long gradual slopes which extend up to the Siah Koh ridge. At 8 miles the remains of a small fort named Koni c auki. Approaching the long low ridges which run nearly parallel to the Karkacha range and at right angles to the course hitherto taken, the road bends sharply to the N. and zigzags up to the crest of the Jagdalak kot l on which are the ruins of an ancient mud fort. The Siah Koh rises abruptly on the right, and on its slopes are several lines of walls, one

It is an important point, as the kotal forms the watershed between the Surkhab and Kabul rivers and is the highest point on the road between Safed Sang and Seh Baba.* The top of the kotal is about 10 miles from the Surkhab. Crossing the kotal the road descends by an easy gradient (maximum 1/20), following generally the course of a winding ravine, varying in width from 100' to 200', between steep hills, covered with dwarf ilex. "Pudding Hill", a round conical hill about a mile below the kotal, completely commands this part of the pass, of which a considerable part can be enfiladed. The valley gradually opens out into a stony hollow as the village of Jagdalak is approached and several small streams of water come down from the hills on the left bank of the stream, and swell the small rivulet which takes its rise about a mile below the kotal and is known as the Pari dara or Jagdalak stream. There was a considerable amount of cultivation around Jagdalak and in a valley which extends to the S.

At Jagdalak there is an Afghan post occupied (September 1909) by—

1 company infantry.
1 squadron cavalry.
Found from Kabul.

This post is a loopholed mud fort of the square type, apparently well built, having barracks all round with verandahs. In the centre is a pond of water which is brought in by a pipe channel from the nala higher up. The supply could be cut off. Good spring drinking water, plentiful in the nala, 100' below. The post is $1\frac{1}{2}$ furlongs from the main road, and is situated on an uneven ridge, round which the road winds towards Seh Baba. Wood plentiful. The village of Jagdalak lies about half a mile away to the W. of the post. The village is small and situated amidst a grove of mulberry trees on the right bank of the stream. Another mountain path passing through a gorge, opposite to Jagdalak, leads to the ruby mines which were still

Camping ground.—For 3 battalions infantry and 1 regiment cavalry but valley is narrow and cramped and units would have to be scattered about. Rather more than a mile to the S. towards the Jagdalak kotal there is room for a brigade to encamp with a sufficient water-supply close by.

Water.—For 2 or 3 brigades at all times as already described. In addition there is a good spring of drinking water in the nala

100' below the fort.

Fuel.—Scanty.

Fodder.—Nothing appreciable; camel grazing negligible.

Supplies.—Nothing appreciable.

From Jagdalak Routes 2-F, and 2-G, lead to Tezin viâ the Karkacha and Iro Manzil passes respectively.

10 KATA SANG 10 m. Metalled road 24'. (4,750')

112 m. 7f.

Descending from the Jagdalak plateau, the new road crosses a dry nala and then following the contour of the hills winds in and out of a series of valleys, passes the chauki of Firman Beg (3 miles) and reaches Sang Toda at mile 7.* Here Route 1-J from Kats Muhammad Ali (Route 1, stage 8) viâ the Dabeli pass joins this route from the E. forming another connection between the main Routes 1 and 2.

Leaving Sang Toda † the road crosses an open, undulating stony plain for about 3 miles more to the mouth of a gorge

where the camping ground of Kata Sang lies. ‡

Camping ground.—"A" camp, camping space 2,200 × 220 paces; surface level, fields in places, stony in others. This camp is in the watercourse whose banks are 60′ high and sloping; 3 battalions could find room to camp on this site, which would not be touched by floods even if the river came down in spate. "B" camp on the right bank, camping space 2,400× 700 paces, surface stony; this site is more liable to be "sniped"

Water.—For 1 infantry brigade with a proportion of divisional troops from 3 perennial springs in the nala bed; below the springs are pools which could be set aside for animals.

Fuel.—The surrounding hills are wooded in parts, and wood therefore in appreciable quantities could certainly be brought in daily from distance of 2 to 5 miles.

Fodder.— Supplies.— } Nil.

At Kata Sang, Route 1 lies only 1 mile to the N. a track running to Maroda joining these routes.

TEZIN RIVER 11 m. 4 f. Metalled road 24'.

124 m. 3 f.

From Kata Sang the new road crosses first a low spur and then a stream which flows E. past Maroda into the Kabul river; the road than zigzags N.W. over a high ridge, from the summit of which it changes its direction to due W. The road keeps to the N. side of the main ridge* winding in and out of a series of spurs, but maintaining an easy gradient throughout. Barikab (4,900') is reached at mile 3. Here the Kabul Mission camped in 1904; the ravine is very narrow, being only 80' to 100' wide.

Camping ground.—Very cramped and only room for about I infantry brigade with a proportion of divisional troops.

Water.—For 1 division if necessary from the Tezin Rud; 4 mile above camp there is also a fine spring.

Fuel.--Scanty.

 $\left. egin{array}{l} Fodder.-- \ Supplies.-- \end{array}
ight\} Nil.$

From Barikab the road at first strikes in a northerly direction down the left bank of the Barikab stream, a tributary of the Tezin river; after ½ mile it bends round the contour of a

completely on its S.E. side. The rocks advance somewhat in a crescent shape, on either flank, and give it some protection.

The camp is, however, exposed to rifle fire from the lower slopes of the Lataband range on the far side of the Tezin nala, a wide stony bed $400 \times to 500 \times broad$. During the last war this was a regular halting place; there is ample water for a brigade from the Tezin stream, but it is liable to be cut off (it was quite dry in September 1893). Water could then be obtained by sinking wells in the bed of the Tezin stream or from a good spring $1\frac{1}{2}$ miles up the Tamkani nala. There are no supplies of any sort.

From Seh Baba Route 2-H proceeds due W. to Butkhak

viâ the Lataband pass.

Leaving Seh Baba the road turns sharply S.W. and ascends the right bank of the Tezin nala; at $11\frac{1}{2}$ miles, just before camp, it crosses to the left bank; crossing easy. The road throughout this stage is closely confined by hills. At $11\frac{1}{2}$ miles ($8\frac{1}{2}$ miles from Barikab) the camping ground now known as "Tezin River."

Camping ground.—On the right bank; camping space 1,400 × 400 paces, surface hard and slightly sloping; this site is in constant use by travellers to Kabul and all carts and camels which do not go by the Lataband halt here for the night. On the left bank, camping space, 1,400 × 200 paces, surface stony. Both sites are commanded from hills on the W. at distances varying from 1,000×to 2,000×; on the N.W. by an inaccessible hill 2,500×distant; on the E. from hills between 500× and 800× distant; at least 5 piquets are necessary.

Water.—For 1 division from the Tezin nala. In May 1912, breadth of the stream was 6^{\times} depth $1\frac{1}{2}$; current $2\frac{1}{2}$ miles per hour; quality of the water is excellent.

Fuel.—Scanty.

Fodder.—Camel grazing negligible.

. Supplies.—Nil.

At Tezin River camp Routes 2-F. and 2-G. from Jagdalak

(8,200') by easy gradients; pass so called from its being the 7th pass since leaving Dakka; once known as the Balutokh pass but this name is scarcely ever used now. Beyond the Haft kandao the road skirts the northern slopes of an isolated hill just N.E. of Khak-i-Tabar and reaches the Khak-i-Tabar stage at $9\frac{1}{2}$ miles. Here there is a government sarai, telephone office and bungalow.

Camping ground.—For 1 infantry brigade with a proportion of divisional troops.

Water.—30,000 gallons daily.

 $\left. egin{array}{l} Fuel.-- \ Fodder.-- \ Supplies.-- \end{array}
ight\} Nil.$

Leaving Khak-i-Tabar the road ascends the right bank of a small nala for 1 mile when it crosses the Taraki kotal (8,030') at mile $10\frac{1}{2}$; kotal low and easy.

A high hill commands the pass from the N.; to the S. the hills are lower. The descent is easy along the left bank of a small nala. At 11\frac{3}{4} miles the road crosses the nala by a wooden bridge 12\times long and 12' broad. Immediately below this bridge a branch nala from Taraki village, 1 mile to the S.E., joins in, and the road now keeping to the right bank, enters the Taraki tangi. The banks are high and steep and the road keeps well above the river-bed. Hills rise perpendicularly on both sides of the road, those on the right being the higher. The defile is 200\times long. The road throughout this stage is closely confined by hills.

At 12 miles Taraki camp situated at the W. exit of the defile.

Camping ground.—Space 2,050×420 paces; camp commanded from hill on the S.W. 2,500× distant; there is another hill 2,000× N. of camp, but it is rugged and inaccessible, so it might be disregarded.

Water.—For a division from the stream which is perennial: stream sufficient to work a large mill: water excellent.

13 BUTKHAK .. 12 m, 4 f. Metalled road 24'.

(5,980') t.o.

148 m. 7 f.

General direction N.W. Leaving Taraki the road follows the right bank of the nala. At $3\frac{1}{2}$ miles, a path branches off to Khurd Kabul (7,220') about one mile distant.* The road now bears N., and leads through fields down the right bank of the Khurd Kabul stream. At $5\frac{1}{2}$ miles enter the Khurd Kabul defile. Elevation of S. end of defile, 7,030'. This defile is flanked by high mountains, between which flows the Khurd Kabul river in a narrow confined channel. The length of the pass is about 6 miles and its width varies from 100 to 200 yards. The mountains are of basalt and iron stone, quite barren, broken into crags and precipices, and apparently inaccessible. The deep gorge is almost entirely sheltered from the sun's rays and the cold is often intense.†

On entering the defile the new road crosses to the left bank and follows it throughout. The hillsides have been blasted, and embankment walls built up from the river-bed where necessary.

From the N. exit of the gorge the road still follows the left bank of the Khurd Kabul stream until Butkhak camp is reached at $12\frac{1}{2}$ miles.

Camping ground.—For a division on the W. of the road in a kind of amphitheatre surrounded by hills, 1 mile S.E. of Butkhak.

Water.—For a division from the Khurd Kabul river. Fuel.—Obtainable but limited.

The Khurd Kabul pass can be turned by the Gospan dara to the W. Leaving Khurd Kabul keep along the main road for 3 miles, when turning to the

^{*} From Taraki or Khurd Kabul, there is a direct route to Kabul.

[†] Note.—This would prove a difficult march, in the face of opposition. Sir G. Pollock when advancing and returning through the Khurd Kabul pass, got through without opposition, having crowned the heights. But Sale's brigade in 1841 and the British force returning in 1842 suffered heavy loss.

Fodder.—For 12,000 animals for one day from Butkhak; camel grazing scanty.

Supplies.—About 1,600 maunds unground grain normally available.

From Butkhak Bala Hisar, but not Kabul city, is visible. Fine view of Kabul valley obtainable from a hill to S. of Butkhak. To the S. lie hills shutting in Khurd Kabul: to the W. lies the Sang-i-Nawishta gorge, held by the Afghans against Sir F. Roberts' advance in October 1879 (Chaharasia). Further N. lies the Takht-i-Shah and Sher Darwaza heights, at the foot of which is the Bala Hisar and Kabul city, covering the Deh-i-Mozang gap, which separates these heights from those of Asmai, where severe fighting took place prior to Sir F. Roberts' being invested in Sherpur. In the foreground is the Siah Sang spur, and to the right the Bimaru hills, at the S. foot of which lies the Sherpur cantonment.

14 KABUL .. 11 m. Metalled road 24'; the section Butkhak to the section Butkhak to the Pul-i-Bagrami bridge (mile 1 to mile $5\frac{3}{4}$) road is double, second road metalled 16'.

Road continues down left bank of the Khurd Kabul stream. At 1 mile Butkhak* (400 to 500 houses); inhabitants very fanatical; formerly residence of the late Hada Mulla. From Butkhak to the Pul-i-Bagrami bridge reached at $5\frac{3}{4}$ miles, the road is doubled and both roads kept up for motor traffic; the 2 roads are parallel and only a few yards apart; the northern road is the ordinary 24' metalled road, the southern is about 16' wide and only metalled to such an extent as to facilitate the passage of motors. The doubling of the road on this section is due to the fact that as kafilas cannot leave the road owing to the swampy nature of the country, the traffic on one road alone became too congested. At $4\frac{1}{2}$ miles pass the site of Sir C. Gough's camp of 23rd December 1879, marked by a mud enclosure, now in ruins; on that

At $5\frac{1}{2}$ miles cross a canal by a strong masonry bridge, and at $5\frac{3}{4}$ miles the Logar river by the old Pul-i-Bagrami bridge. The Logar is in October merely a trickling stream, but in December, January, February, March, July and August, a bank high rapid running river. The channel between banks is 100 yards wide. When running high the Logar river is a serious obstacle. There is a ford $1\frac{1}{4}$ miles below the bridge. During the summer months, the volume of the river is greatly reduced by the drain caused by the numerous irrigation canals and channels.

Immediately beyond the Logar river is a large canal running round the eastern skirt of the Siah Sang range. This is crossed by a bridge. From here a road avoiding the Bala Hisar leaves the Siah Sang on its left and skirting its foot leads across the bridge into the Sherpur cantonment.

At mile $6\frac{1}{2}$, road bends N.W., and at $7\frac{3}{4}$ miles crosses a col in the Siah Sang range by easy gradients. The Siah Sang plateau is an important position, and dominates Kabul from the E. and S.E. At 9 miles a road, suitable for wheels, leads up to the gate of the Bala Hisar, now a ruin, with the exception of the citadel, which is used as a magazine and store. The new road leads on direct from Siah Sang to Kabul city, which it enters at $10\frac{1}{2}$ miles.

Fort of Siah Sang on low hills commanding the city $\frac{1}{2}$ mile from Bala Hisar to the N. of the road. Sherpur cantonment is about $1\frac{3}{4}$ miles from Bala Hisar, or $1\frac{1}{2}$ miles from the E. gate of the city, by a good shady road.

 $Camping\ ground.$ Water. Fuel. Fodder. Supplies. $Vide\ Route\ 1.$

SIGNALLING STATIONS.

Note.—The following were the principal signalling stations

C.—Ali Masjid

.. Station in the fort.

D.—Kata Kushta

Permanent hut built for the signaller in 1879. Water had to be carried up from the pass. Very bad site for tents. Station E. only just visible over hills S. of pass.

E.—Landi Kotal, North Camp. .. Station on top of small rocky hill in the pass, protected by high sangar.

F.—Landi Kotal, Headquarters. .. Station in a sangar close to telegraph and other offices of the 3rd Brigade headquarters.

G.--Pisgah, 4,000 feet

Permanent hut for signallers and guard built on the hill. Signalling at night carried on from interior of hut through windows.

H.—Dakka

.. Station on small room in centre of fort; or on a flat-topped hill in centre of Khurd Khaibar range, 1 mile W. of fort.

I.—Basawal

.. Station 1,000 yards S. of fort.

Messages carried to and from by
mounted orderlies.

J.—Barikao

.. Station in the fortified enclosure.

K.—Ali Boghan

.. Station on spur of hills, 3 miles from signallers' camp, situated on a low hill near well at Ali Boghan and protected by high sangar. In 1879-80 a special party was sent out with an escort of 20 men and

- N.—Fort Battye .. Station 200 yards S.W. of fort.
- O.—Safed Sang, 4,513 Station 3 mile from camp, on hill close to the road. From here communication was once opened on 30th May 1879 with the Kurram Force, whose signallers as-

cended the Safed Koh by the Bodin pass.

- P.—Ditto .. Station in Brigade headquarters camp.
- Q.—Pezwan, 4,700 feet Station in camp.
- R.—Pezwan kotal, 5,180 feet.

Station on kotal 2 miles from camp; occupied during the day only, and then so as to communicate with Jagdalak kotal.

- S.—Jagdalak kotal, 6,200 feet.
- Station in the old fort, close to the road.
- T.—Ditto, 7,000 feet (approx.).
- Station on Siah Koh range, half an hour's climb from the kotal; occupied during the day only.
- U.—Jagdalak, 5,500 feet.
- Station in the fort.
- V.—Darunta, 2,300 feet.
- Station on end of Siah Koh range; climb of 1,000 feet to communicate with Laghman; occupied during the day only.

The lettering in above table refers to "Map showing Signal Stations of Khaibar Division K. F. F., 1878-79" (M. O. 3,

ROUTE No. 2-A.

BASAWAL TO SAFED SANG.

 $50\frac{1}{2}$ miles.

4 stages.

Authority.—Roos-Keppel (from native information), October, 1905.

Epitome.

General description.—This is an important alternative to stages 2 to 8* of Route 2.

Road.—First 6 miles to Batikot metalled road 24', thereafter camel road throughout, which could rapidly be improved for carts. The following obstacles are encountered:—

- (i) In the first stage the Kot khwar and the Hisarak Rud; in both cases the banks are steep and would require ramping to be passable for carts.
- (ii) In the 3rd stage the Chapriar stream, always fordable, and the Wazir Rud temporarily impassable during spates.

Route open throughout the year and much used by travellers now that the Shinwaris have been subdued.

Camping grounds.—For a division at stages 1, 2 and 4 and for an infantry brigade with proportion of divisional troops at stage 3.

Water.—For a division at stage 1, and for an infantry brigade with proportion of divisional troops at the remaining stages.

Fuel.—Procurable at all stages; considerable quantity at stage 3, scanty at stage 4.

Fodder.—For 3,000 animals for 1 day at stage 1 and for twice that number at stage 3; this includes bhusa; camel grazing good at stage 2, otherwise scanty.

Supplies.—At Kandibagh (stage 2) 2,500 maunds unground

| No. of stage and total dis- tance. | D: | | s. |
|------------------------------------|----------|-------|--|
| 1 14 m. | KAM BARU | 14 m. | Metalled road 24' to Batikot 6 miles; thence unmetalled cart |
| | | | road to end of stage. |

Road follows the motor road, direction W., to Batikot 6 miles, vide Route 2, stage 3; it then turns S.W. across the plain, road good and hard. At 10 miles cross the Kot khwar, large ravine with precipitous banks, which would require ramping to be practicable for carts. At $12\frac{1}{2}$ miles Mohmand village of Loi Baru or Baru-i-Kalan (1,000 houses) situated on the right bank of the Hisarak, which is crossed here by an easy ford; river contains perennial stream of good water but banks require ramping to be passable for carts.

At 14 miles Kam Baru or Baru-i-Khurd (50 houses); nomad winter encampment. Country throughout the stage consists of an open plain, intersected occasionally by ravines running

N. towards the Kabul river.

Camping ground.—For a division; good shade in parts, from clumps of trees.

Water.—For a division or more from the Hisarak stream, and several karezes in the vicinity.

Fuel.—An appreciable amount from the trees referred to.

Fodder.—For 3,000 animals for 1 day can be collected; camel grazing negligible.

Supplies.—About 500 maunds of unground grain would

normally be available here.

2 KANDIBAGH .. 14 m. Camel road easily con-

(stage 3 of that route). At $6\frac{1}{2}$ miles Dehgan village of Kadab (300 houses); at 8 miles descend into the Zakhel ravine in which lies the village of Zakhel or Zango Kas (300 houses); water plentiful here.

At $8\frac{1}{2}$ miles cross the Nariob river by an easy ford. Thence the road, which is hard and good, ascends slightly for about a mile and runs on the level across a plain. At 11 miles Tarkhe Obo spring of excellent water, belying its name, which signifies "bitter water."

At 14 miles Kandibagh (250 houses) on the right bank of the Chapriar stream, winter encampment of the Amar Khel, Daulatzai kuchis.

Camping ground.—For a division, if necessary, on the plain W. of the village.

Water.—For at least one infantry brigade with proportion of divisional troops, from the Chapriar stream.

Fuel.—Limited supply procurable from the short scrub on the plains.

Fodder.—Good camel grazing.

Supplies.—Kandibagh is one of a collection of villages in the Chapriar valley which contain in all about 2,000 houses (inhabitants Tajiks and Mohmands). It has been calculated that about 2,500 maunds of unground grain and fodder for 12,000 animals for 1 day could normally be collected from these villages. Ghi in large quantities in the winter can also be obtained here.

3 SARA KILLI .. 14 m. Camel road easily convertible for carts.

42 m.

General direction W. Road good. At $\frac{1}{4}$ mile cross Chapriar stream; banks easy and river always fordable. At 1 mile Hafiz Kala (10 houses), near which a small water channel

ROUTE No. 2-A—concld.

cross the Wazir Rud (tributary of the Surkhab) 9 miles distant to the N., stream perennial temporarily impassable during spates; ku^*hi encampments on both banks. Thence road ascends to Sara Killi reached at 14 miles.

Camping ground.—For at least 1 infantry brigade with proportion of divisional troops.

Water.—For the above force from the Wazir Rud and from

springs in a ravine $\frac{1}{2}$ mile W. of the village.

Fuel.—In large quantities from village of Kaja 2 miles S. of camp.

Fodder.— About 1,000 maunds of unground grain and fod-Supplies.— der for 6,000 animals for 1 day from the Khugiani village of Arghach 1 mile N. of camp. Large number of camels also obtainable from this village.

4 SAFED SANG .. 8 m. 4 f. Unmetalled cart road.

50 m. 4f.

Direction at first S.W. At 3 miles Khugiani village of Kharan (80 houses) on the right bank of the Shagai Rud (tributary of the Surkhab) containing perennial stream of good water. Road then turns N.W. and at 6 miles crosses the Spinatiga, small pass just S. of the Nimla bagh, whence it turns at right angles S.W. and joins Route 2 at Safed Sang on the right bank of the Marki Khel stream. Here there is the remains of a British fortified post, used by us in the 2nd Afghan War.

Camping ground.—For a division or more if necessary.

Water.—For 1 infantry brigade with proportion of divisional troops from the Marki Khel stream.

Fuel.—Scanty.

Fodder.—Camel grazing negligible.

ROUTE No. 2-B.

OGHAZ TO BARIKAO.

30 miles.

2 stages.

Authority.—Native information.

Epitome.

General Description.—This route connects at Oghaz with Route 54, Routes south of the Kabul River and together they form a through route leading from the Kurram valley over the Oghaz* pass to Barikao, stage 3 on the principal main route (Route 2) from Peshawar to Kabul.

Road.—Camel road throughout, easily convertible for carts, but it must be remembered that the road from Oghaz pass to Oghaz, the last section of the connecting route, a distance of 8 miles, is only a track passable by laden mules with difficulty. The only obstacles encountered are several ravines which would cause delay to carts and wheeled artillery till improved. Route open throughout the year, though the Oghaz pass in the connecting route is blocked by snow for at least 6 months.

Camping grounds.—For at least 2 infantry brigades with proportion of divisional troops, at Mazina the intermediate stage.

Water.—For that force at Mazina.

Fuel.—Abundant at Mazina.

Fodder.— Unground wheat and barely and an equivalent Supplies.— amount of bhusa obtainable in appreciable quantities at Mazina; camel grazing good along the route except in winter.

| No. of stage and total dis- tance. | | DETAILS. | |
|------------------------------------|--------|----------|---------------------|
| 1 [| MAZINA | 15 m. | Camel road practic. |

1 MAZINA

15 m. Camel road practic-

ROUTE No. 2-B—concld.

Koh, the road runs N.W. through low hills passing several villages. At 6 miles Deh Bala, a small hamlet with tower, also said to be an Afghan outpost with garrison of 1 company and 2 mountain guns. At 8 miles, Kotgai, a large, scattered village; at 10 miles Mahrez, large village on the Papin stream along whose banks the road now runs enclosed by high hills. At 15 miles Mazina village which contains numerous mud forts, surrounded by cultivation and orchards; inhabitants Saiyids and Dehgans.

Camping ground.*—For at least 2 infantry brigades with

proportion of divisional troops.

Water.—For the above force from the Papin stream.

Fuel.—Abundant from the wooded slopes of the Safed Koh, about 3 or 4 miles from camp.

Fodder.—Grazing for horses and mules on the grassy slopes of the Safed Koh adjoining camp; this grass could of course be cheeled for fodder; bhusa to an appreciable extent; good camel grazing except in winter.

Supplies.—Unground wheat and barley to an appreciable

extent obtainable.

2 BARIKAO .. 15 m. Camel road convertible for carts,
30 m. but work necessary
at the several ravines before being easy for wheeled traffic.

General direction N.E.—Road now leads along either bank of the Papin through country studded with forts and broken by orchards, terraced fields and water courses. At 4 miles cross Route 1-E., just S. of Roghani (stage 3 of that route). Road now runs roughly paralled to Route 2-A, which is ½ mile to the W. as far as Kam Baru 9 miles, passing Shershai (1,500 houses) at 8 miles. At Kam Baru, Route 2-A, is crossed, the road thereafter running over a stony waste on the left bank of the Hisarak Rud. At 15 miles camp Barikao.

Camping ground.— \(\gamma\)

ROUTE No. 2-C.

PAPIN TO BARIKAO.

24 miles.

2 stages.

Authority.—Native information.

Epitome.

General description.—This route connects at Papin with Routes south of the Kabul River Route 53(a) and together they form a through route leading from the Kurram valley over the Papin pass* to Barikao, stage 3 on the principal main route (Route 2) from Peshawar to Kabul.

Road.—Mule road to Mahrez (4 miles), thence wide track easily convertible for carts. The only obstacles encountered are several ravines which in present state (1912) would cause considerable delay to carts and wheeled artillery.

Road open throughout the year (but vide footnote regarding the Papin pass).

Camping groun d.—

Water.—

Fuel.—

Fodder.—

Supplies.—

Vide Route 2-B.

No. of stage and total distance.

DETAILS.

1 MAZINA (4,000') 9 m. Mule road to Mahrez (4 miles), thence track easily convertible for carts.

Leaving Papin camp† the road follows a valley, foot pas-

ROUTE No. 2-C—concld.

2 BARIKAO .. 15 m. Vide Route 2-B.

24 m.

ROUTE No. 2-D.

GANDAMAK TO TARAKI.

38 miles.

3 stages.

Authority.—Afghan War records, 1879-80.

Epitome.

General description.—Alternative route between Gandamak, (intermediate stage between stages 7 and 8, Route 2) and stage 12, Route 2.

Road.—Camel road to Chartut (1st stage), thence mule road throughout, with the exception of the last $7\frac{1}{2}$ miles, which is a metalled cart road. The following obstacles are encountered, (i) The Sarkhab crossed at Chartut (stage 1) river always fordable; (ii) the Karkacha pass (8,000') crossed in the 2nd stage; difficult for laden animals and dangerous for camels; (iii) the Tezin Rud forded during the last march; no difficulty. The Karkacha pass is blocked by snow during December, January and February, possibly longer.

Camping grounds.—For 1 infantry brigade at stage 1, and for 2 infantry brigades at stage 2, with proportion of divisional

troops in both cases.

Water.—For a division at stage 1 and for at least 2 brigades with proportion of divisional troops at stage 2.

Fuel.—Abundant along the route from the wooded slopes of the Safed Koh.

Fodder.—Limited quantity at both intermediate stages; camel grazing scanty throughout.

Supplies.—For troops could not be reckoned to on any extent

at intermediate stages.

The Karkacha route leaves the Kabul road (Route 2) at the site of the old cantonments. At 1 mile it crosses a dry nala, and then rises over a stony spur from the high plateau above Ganda, which lies about a mile to the left of the road. Ganda is a large village with considerable cultivation about it. 3 miles a stream. Half a mile further the road passes through a narrow defile, and is bad and rocky. At 5½ miles Tutu. (5,100') which lies a mile or so to the S. of the road. Tutu consists of a large group of forts and hamlets. much cultivation, and water is usually abundant. The road after about 3 miles of level, sandy ground skirts the S.W. portion of the old Badshahi Kala. At $9\frac{1}{2}$ miles pass Aspan, where the Ghilzai country is entered, at 12 miles reach the Surkhab, which is here always fordable; cross over to Chartut. From Aspan onwards the road is stony and much cut up by nalas. At 12 miles Chartut, Ghilzai village, 300 houses.

Camping ground.—For at least 1 infantry brigade with pro-

portion of divisional troops on an excellent site.

Water.—For a large force, probably for a division from the Surkhab.

Fuel.—Abundant.

Fodder.—For 300 animals for 1 day; camel grazing scanty. Supplies.—400 maunds unground grain normally procurable here.

From Chartut Route 2-E., a connecting route between Routes 2 and 3, branches off S.W. and leads to Ali Khel (Route 3, stage 2).

2 TEZIN .. 14 m. Mule road.

26 m.

From Chartut the track leads N.W. At 7 miles Yaghiband

ROUTE No. 2-D-contd.

bare of grass; a deodar forest existed formerly but it has been destroyed by charcoal burners. Within 200' of summit are the ruins of a once strongly built brick fort.

Wood says of the route from Hisarak: "It then enters the bed of a tributary of the Surkhrud, along which it continues to wind till near the top of the pass. The hills continue to increase in height and to draw near each other till the bottom of the defile is but 10' wide. On each side the mountains are now bare, precipitous and craggy. Trees of a large size are found scattered along the torrent bed; at one place the trunk of a fir, 12' in circumstance and 24' long, barricades the passage.

Two hundred yards before coming to this pass of the fir tree a ledge of stone, 4' high, crosses the path and is the first obstruction to wheeled carriages. As the summit is approached, the road leaves the bed of the torrent on the left, and winds along the face of the mountains, which are here more open. descent of the pass to the W. is more direct than on the opposite side, but here a fall of 20' in the bed of the torrent presents more formidable obstructions to wheeled vehicles than those before enumerated. Karkacha is not a gun-road; it is dangerous for camels, and is traversed with difficulty by laden mules and yabus. The hills on both sides are clad with pine, holly and almond trees. An inferior description of indigo is plentiful. During the months of December, January and February, snow blocks up the road and the weather is said to be so severe that stones are fractured by the intensity of the cold. The black wolf and leopard are sometimes met here; and these, with many other kinds of wild animals, are said to be numerous in the neighbouring mountains of the Safed Koh".

The following is an extract from a report by Colonel Jenkins, c.B., Commanding Corps of Guides, of a reconnaissance made by him on the 15th November 1879 of the Karkacha pass:—

"I marched from Tagdalak hotal about 7 A M with a com-

ROUTE No. 2-D—concld.

road, which is the most S. of all the roads from Jalalabad to Kabul. It appeared easy up to about 1,000' from the top of the pass. I do not consider it practicable for our baggage animals. There is a fine view from the top of the pass. We saw Basawal hill plainly and the Khaibar hills to the E. To the N. and W. we saw the Hindu Kush and a part of the Kabul plain. There was no grass on the Karkacha hill; nothing but the bush called (in Pushtu) irrika, which is not eaten by any animals, except perhaps the kuchi camel."

After crossing the Karkacha pass the track descends through Tora China to Tezin, a large group of villages at the head of the valley of the same name.

Camping ground.—For 2 infantry brigades with proportion of divisional troops.

Water.—For the above force at least from the Tezin Rud 1 mile W. of camp, with a supplementary supply from a small stream adjoining camp.

Fuel.—Abundant; many of the slopes of the Safed Koh are wooded from base to summit.

Fodder.—For about 1,000 animals for 1 day.

Supplies.—Practically nil; it is estimated that only about 150 maunds unground grain is normally available.

3 TARAKI .. 12 m. Mule road for $4\frac{1}{2}$ miles, thence metalled ed cart road, 24', to end of the stage.

Leaving camp the road runs N.W. to Malakhel reached at $1\frac{1}{2}$ miles. Here Route 2-F, from Jagdalak $vi\hat{a}$ the Iro Manzil pass joins in. The track now takes a sharp bend to the left and runs nearly due W. till the metalled road (Route 2) is reached at $4\frac{1}{2}$ miles, the Tezin Rud being crossed just before the road is reached. The crossing of the Tezin Rud presents no

ROUTE No. 2-E.

CHARTUT TO ALI KHEL.

Viâ the Lakarai pass.

45 miles.

4 stages.

Authority.—Native surveyors, 1879, and native information, 1909.

Epitome.

General description.—Lateral route connecting the 2 main Routes 2 and 3. To join up with Route 2, however, the first stage of Route 2-D (Chartut-Gandamak) a distance of 12 miles must be traversed, making the total distance by this route between Gandamak and Ali Khel 57 miles, divided into 5 stages.

This route is regularly used by kuchi camels.

Road.—A well used path averaging about 4' in breadth, but wide enough for laden camels. To improve this road some digging on both sides of the Lakarai kotal is necessary, and if this were done the route should be fit for Indian transport camels. Lord Roberts was of opinion that it is impassable for an army without considerable labour, and that the summit of the Lakarai kotal being narrow could be easily blocked. Country mountainous throughout.

The following obstacles are encountered:—

- (i) Ghaughiza kotal in the 1st stage; no difficulty.
- (ii) Hazrah kotal in the 2nd stage; no difficulty.
- (iii) Lakarai pass (10,400') in the 3rd stage; described above.

Local traffic is mostly on mules and donkeys travelling between Jalalabad and Hariob. General Bahawal Khan with 2 regiments of Afghan infantry and 2 troops of cavalry used this route in advancing from Ningrahar to Hariob on the occasion of the Jaji disturbances in 1901; he crossed the Lakarai kotal on the 9th October.

The Lakarai pass is closed by snow from the 15th December

Fodder.—A little camel grazing along the route but none in winter.

Supplies.—Nothing appreciable.

| No. of stage and | DETAILS. | |
|------------------|----------|--|
| total distance. | | |

1 | ASPANDO KATS. 11 m. Camel road.

11 m.

General direction S.W. Leaving Chartut the road follows the left bank of the Surkhab and at ½ a mile crosses the Muhammadzai nala up which Route 2-D runs N.W. to Tezin. On the left bank of this nala is the small village of Ganji Khek. Road traverses the Hisarak district which contains large number of villages dotted about its wide plain; inhabitants Jabar Khel Ghilzais. At 2 miles Muhammad Shah Khan Kala, principal village in the district (100 houses) with fort on the right bank of the Surkhab here 25 broad and 2' deep. In the village there is a small bazar where a certain amount of trade in cloth from the Kurram is carried on. Considerable cultivation. One company of infantry (on detachment from Kabul) is stationed here in two small posts.

The road now leaves the Surkhab and keeps to a branch stream called Ghaughiza but there is also a path used by local baggage animals which follows the Surkhab. A little above this, the river flows through a precipitous defile, and the path is actually in the river bed and is impassable in spring and after heavy rain. It is consequently little used. Following the Ghaughiza stream the village of Miz Ghondai (40 houses) is passed at $2\frac{1}{2}$ miles. Opposite the village there is a hill to the left of the road, and from here to the end of the stage a steep spur covered with a few trees separates the road

ROUTE No. 2-E-contd.

reached at 7 miles. The road now leaves the stream and ascends a low and easy pass (Ghaughiza *kotal*); no difficulty. From the foot of the pass the road continues for 4 miles along the valley to Aspando Kats (10 houses) reached at 11 miles; inhabitants Akbar Khel Ghilzais.

Camping grounds.—For an infantry brigade with proportion of divisional troops.

Water.—For the above force at least from the stream a tributary of the Surkhab, ½ mile W. of camp.

Fuel.—Abundant; a large quantity of firewood could be brought in from within 2 miles of camp.

Fodder.—
Supplies.—
Practically nil.

2 TAGHAN ... 11 m. 4 f. Camel road.
(8,500').

22 m. 4 f.

The road continues to lead through low hills covered with grass and bushes, which still separate the road from the Surkhab; there is a very slight ascent to a low pass (Hazrah kotal), and then a descent of about 1 in 10 to the banks of the Surkhab, reached at 7 miles. Road crosses by an easy ford (stream 6" deep and 12' wide in November), but the crossing is said to be difficult, though never impassable, in spring. Slight repairs are required to make the banks easier. Surkhab, which above this is known as the Babar nala, flowing from the W. makes a bend to the N. here, and the Lakarai nala flowing N. joins it at the bend. At the junction is the village of Amrut (10 houses), Ghilzais. The road continues S. of the left bank of the Lakarai nula; slight repairs are required above Amrut. The valley is about 200× wide, high hills on right bank, low broken hills on the left. At 8 miles, Mangal Stir Kala, 50 houses, bhusa and a little grain procurable (Indian corn and wheat); water and wood in plenty. Room to camp in fields. Keeping up the valley the road crosses to the right bank near

3 BAGHUCHINA 9 m. Camel road.

31 m. 4 f.

Leaving Taghan the road keeps to the left bank of the nala. The valley gradually contracts and the hills are Only the hills on left bank are wooded; piquets could move up the hillsides. General direction of road, S.E. At 2 miles cultivation ends, and at 3 miles the path leaves the nala and ascends the left bank. There is also a path up the right bank, but the left is better. The ascent of the Lakarai pass is now commenced. For 1 mile the ascent is steep, I in 7, up the wooded hillside; this is the most difficult part of the pass. At 4 miles there are zigzags at a gradient of 1 in 9. The top of the Lakarai kotal (10,400') is reached at 5 miles. From the pass spurs run up to the E. towards Sitaram, to the W. the range is practically level with the pass. hills are thinly wooded at the top, but more densely wooded lower down. They could be piqueted without difficulty. There is no level ground at the top of the pass. Troops advancing on the Lakarai kotal from either side in the face of opposition could move on a fairly broad front; they would not be compelled to keep to the nala but extend along the spurs on either side. The upper spurs E. of the pass are the key to the position. The descent is down a spur at an average gradient of 1 in 10; it is not difficult. At 6 miles the path descends the right bank of the Lalidar nala, and continues down the nala bed. From the foot of the pass the road lies down an easy slope of from 5° to 7° to Baghuchina reached at 9 miles. Above are the precipitous sides of the Safed Koh, up which a difficult path leads to the Zera kandao, a short route to Gandamak through the Khugiani country.

Camping ground.—For at least 1 infantry brigade with pro-

portion of divisional troops, on an open, grassy plain.

ROUTE No. 2-E—concld.

4 ALIKHEL .. 13 m. 4 f. Camel road.

45 m.

The path leads down the bed of Lalidar (Lulidar) stream and is first comparatively easy, but is rough and stony further on. The valley is wooded with large juniper trees and gradually opens out; the hills on both sides are densely wooded. At 1 mile there is a path which leads viâ Sirgul to Zabardast Kala in the Hariob valley passing over the Tarakai kotal. At 3 miles, the junction of the Mithai stream from the W. with the Lalidar is reached. The two streams enclose a large, open grassy space about ½ mile long and a ¼ of a mile broad; here was a small rough wooden hut, Jaji post held for our Government by the villagers during the last war. From this point there is another path from the Lakarai kotal which follows the Mithai stream, but that above described is the best and is the one used by caravans. The route lies down the nala of the Lalidar stream, at first through low pine-clad hills which here and there retire from the stream leaving open spaces. The dara is then open, the hills on either side being easily accessible and covered with fir. Bed of the river is 150× to 200× yards wide; banks 50' to 140' high. At 3 miles, an alternative path follows the left bank through cultivation joining the nala route at Bilut reached at 4 miles. There are three villages called Bilut situated on the banks of the Lalidar stream. Average height above the sea 8,100'. A gun-road was made in April 1879 connecting Bilut with Zabardast Kala. At 6 miles villages of Mushingi and Bar Bilut situated amongst fields are passed on the left and route continues along the ravine to 7 miles, where the military road (fit for field artillery during the Afghan War, 1879-80) is met whence it is $4\frac{1}{2}$ miles to the Paiwar kotal. 8 miles the road strikes the through Route 3, which it follows

ROUTE No. 2-F.

JAGADLAK TO TEZIN RIVER.

Viâ the Karkacha pass.

15 miles.

1 stage.

Authority.—Routes on the North-West Frontier, 1892.

Epitome.

General description.—This route forms one of the short cuts between stages 9 and 11 of the main Route 2.

Road.—Metalled cart road, 24' to mile $3\frac{1}{2}$, then mule road to mile 14 and metalled cart road once more to Tezin river camp, mile 15.

The Karkacha pass is the only serious obstacle encountered; it is difficult, but passable for laden mules. This pass is closed by snow from December to February, thus blocking the route for that period.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

There is no intermediate stage in this route.

No.
of stage
and
total distance.

DETAILS.

TEZIN .. 15 m. Metalled cart road, 24', to mile $3\frac{1}{2}$, then mule road to mile 14, and finally metalled cart road 24' for the last mile.

For the first $3\frac{1}{2}$ miles road follows the motor road back to the Jagdalak pass* (6,200'), direction S.E., vide Route 2, stage 9. At the fort on the ketal the present route bends almost at right angles

direction. At 5 miles Wadat (10 houses), also known as Ghoanzat; inhabitants Maruf Khel Ghilzais. A path runs N.W. from here and joins Route 2-G., $2\frac{1}{2}$ miles distant, 2 miles E. of the Iro Manzil pass. The track now follows the banks of a stream which flows down towards Jagdalak. The stream is bounded on either side with high banks of sandstone rocks, topped with conglomerate and loose boulders. The banks reach a height of 300' above the stream, and are very steep. At about 7 miles the road leaves the stream, and ascends the bank to the right, and enters another ravine which rans down to Jagdalak. The ascent of the Karkacha pass is now commenced. The track as tends the left bank of this stream by a zigzag path, and proceeding up the spur, reaches the crest of the watershed. Here the ridge narrows, and the road sometimes passes along the top of it, as over a knife-edge, with steep precipitous sides falling into deep yawning chasms many hundred feet below, and some times it passes to the left and right of the ridge, with a roadway just sufficient for one person at a time. At this height the loose boulder formation is passed and the basalt beds of the range are reached, which consist chiefly of soft clay of a red and brown colour, with an occasional layer of harder rock. These run about N. and S. and are nearly vertical, the read passing over their outcrop; and, although the drops into either ravine are very fearful to look at, yet the ground is firm to the tread, and sure-footed animals can pass without danger. In this way the top of the pass is reached. At 200 feet from the summit is a piece of level ground, on which are remains of a brick building said by some to have been a fort built in the time of the Chaghatai dynasty.

The view from the top is much the same as that from the Iro Manzil pass, while the road is more difficult and water further from summit.

The second the letal the treet follows Don't O.D. nearly W.

ROUTE No. 2-F-concld.

Camping ground. — Water.— Fuel.— Fodder.-Supplies.—

Vide Route 2, stage 11.

NOTE.—In addition to Routes 2-D, 2-F and 2-G, the following routes run through the Karkacha mountains:-

(1) The Chapar or Saparai route, avoiding Gandamak and Khuglani

country, difficult but traversed by kafilas.

2) Angur Tak road by Tatang-i-Wazir, Surkhab bridge; easy.
(3) The Chinari route, avoiding the Haft kotal. After crossing the Chinari pass, one road joins the Royal road at Kabar-i-Jabar, which is as easy as the Haft kotal road. Another and a more difficult road goes to Butkhak.

(4) The Lakari road over hills, but short and practicable for laden ani-

(5) The Minari road from Tarakai, near Khurd Kabul, direct to Kabul. Most of the wood from the Karkacha range of hills reaches Kabul by this route, it being the most direct. It receives its name from the ruins of a lofty minar, or minaret, on the hills.

(1) Leads from Sultanpur to Jagdalak.

2) From Fatehabad to Surkhpul. (3) From the Tezin valley to Kabul.

(4) From Jagdalak to the Tezin valley.

None of these are routes which would be of much use to troops except for turning movements, but they are routes which might be used by a guerilla enemy and should, therefore, be observed.

ROUTE No. 2-G.

JAGDALAK TO TEZIN RIVER.

Viâ the Iro Manzil pass.

12 miles.

1 stage.

Authority.—Afghan War records, 1879-80.

Epitome.

| | Camping Water.— Fuel.— Fodder.— Supplies. | - \rightarrow T | here is n o route. | intermediate stage on th | is |
|----------|---|-----------------|------------------------------|--------------------------|----|
| . | No. of stage and total dis- | , | DE | TAILS. | |
| | 1 12 m. | TEZIN RIVE | R 12 n | n. —Mule road. | |

Jagdalak village the road runs for ½ mile up a stony gradual ascent between two converging nalas; the track then enters the nala bed at the point of bifurcation. The bed is about 100' broad, stony, but not difficult. At 3 mile another nala joins it on the left, but the track follows the nala which comes from the right. This nala is not more than 30' broad, and unfit for camel traffic. At one mile enter the Ulai nala, which is over 200' broad, with trees and cultivation on both sides. Close by is a burj or tower, and a good spring of water. For the next two miles continue to follow the bed of the nala, which has steep banks and rolling hills, about 100 or 150 feet high, on both side; the gradient becomes gradually steeper. Direction S.W. At 3 miles another spring; other nalas from the left join the main one but the road continues to keep to the right. At $3\frac{3}{4}$ miles leave the nala by the proper left bank and ascend the hill on the right by a very steep ascent of $\frac{1}{5}$. Pass a few deodars. At $4\frac{1}{4}$ miles the road becomes easy, and may be called a good hill path. At 7 miles from Jagdalak village reach the top of the Iro Manzil pass by a good zigzag of Height 9,250'. The descent on the other side (W.) is very steep and bad, the Tezin valley being about 4½ miles further on.

ROUTE No. 2-G—concld.

The Iro Manzil pass (probably the Yara Manzal—the "fearful" stage or march; in some reports it is spoken of as the Tro Manzil pass) is a point of great strategical importance, and if occupied would effectually ensure the security of the main road between Pezwan and Seh Baba. Colonel Jenkins of the Guides says of it: "I was very much struck by the position of Iro Manzil. It commands all the roads leading from Peshawar to Kabul and the Ghilzai settlements of Hisarak, Jagdalak and Tezin. As a military position it seems to me very superior to any point that we could hold on the main ridge of the Safed Koh. We found water within 200 feet of the top, and there are very easy roads up to it which can be improved by country workpeople without much expense."

Note.—The usual route to follow from Safed Sang over the Iro Manzil pass leaves the main Kabul road about 1 mile S. of the Jagdalak kotal, passing the village of Wadat or Ghoanza (vide Route 2-F).

ROUTE No. 2-H.

SEH BABA TO BUTKHAK.

Viâ the Lataband pass.

22 miles.

2 stages.

Authority.—Afghan War records, 1879-80, and native information, 1911.

Epitome.

General description.—Alternative, but direct, route between Seh Baba and Butkhak and one which forms a short cut between stages 10 and 13, Route 2, reducing the distance between these stages from 31 to 22 miles. Road.—Formerly a cart road and used as such in the 2nd Afghan war, but as no effort has been made for 32 years to keep it in repair, it is now (1912) reduced to a camel road and could only be made passable for carts through-

ROUTE No. 2-H-contd.

Camping ground.—For a division at the intermediate stage.

Water.—For 2 or 3 infantry brigades with proportion of divisional troops at the intermediate stage.

Fuel.—Firewood abundant but inferior at camp Lataband. Fodder.—Fair camel grazing except in winter along the route.

Supplies.—Nil.

| No. of stage and total dis- tance. | | DETAILS. | | |
|------------------------------------|------------------------------|----------|-------------|--|
| 1 11 m. | CAMP LATA- BAND (5,900'). | 11 m. | Camel road. | |

General direction S.W. Leaving Seh Baba and crossing the extremely stony bed of the Tezin stream, which is so rough as seriously to impede all baggage animals, especially camels, the road first leads straight up the gently sloping skirts of the Lataband range, and then bearing away to the S.W. winds gradually up the side of the hills, the path being in many places narrow and rough, with a steep precipice below.

In many places the road has fallen in or been banked up by slips from above. As the hillside is almost entirely composed either of soft sandstone or easy conglomerate, small repairs could be quickly carried out. For heavy traffic, however, it would be absolutely necessary entirely to re-align the road for considerable distances, as the gradients of the existing track are quite steep and prohibitive for wheeled transport.

Having ascended well on to the spurs of the range, the road again bends more to W., and losing sight of the Tezin valley, enters the heart of the hills. Winding through narrow valleys,

Up to about this point the old road and the new cart-road, made in 1880, cross and re-cross each other, but here at about 5 miles from Seh Baba the cart-road bears entirely to the right, escapes the kotal altogether, and winds round each successive hill, never exceeding a height of 7,000'. The new road makes the march from Seh Baba about 4 miles longer but is far more easily defended. Water from two or three springs obtainable. In the second Afghan war the cart transport service ceased at Gandamak, light pony carts only traversed the road over the Lataband. This road had entirely disappeared for considerable lengths in 1904, and carts sent along it had to turn back. No effort has been made by the Afghans to keep it in order and 25 years of weather-wear and disrepair have almost obliterated large portions of it. It would probably take months of work before it would be suitable for carts.

Continuing along the old road, after leaving the so-called cart-road, it then enters a more confined valley, the hills on either side being both loftier and steeper than those hitherto met with. They are formed of conglomerate and where their sides have been exposed to the action of water they have been cut away, and the formation clearly exposed.

About three-quarters of a mile above the caves, there is a very narrow and difficult place, the passage between the walls of conglomerate rock barely giving room for a cart to pass. The ascent through the narrowest part was also steep and slippery and strewn with loose boulders. It is only about 30×in length but was (December 1904) a serious impediment to all traffic and extremely difficult for wheeled vehicles. A few days' work would, however, make it much easier.

Above this tangi there are no difficulties met with, the path continuing to ascend by moderate gradients to the summit of the main kotal (elevation 7,950') reached at about 6 miles. From the top a good view of the Kabul valley and city is ob-

Between the main kotal and the next lower one which overlooks the Lataband camp, a considerable valley has to be crossed. The descent is easy and pretty direct, the bed of the stream, near which is a kuchi camp, being a little more than 2 miles from the top of the kotal.

Following the course of the stream for about a mile, the road from the *kotal* passes through a very similar *tangi* to that described above, with rough, boulder-laden bed, and precipitous cliffs on either side, then the junction of the old and new roads is reached at a point where the latter bends sharp to the W., and ascends the lesser *kotal* by a long series of zigzags.

A similar descent leads to the camping-ground at Lataband, which is situated in the centre of a basin, surrounded by lofty hills on three sides. Streams of water flow close past the camp, which is to some extent protected by a piquet house on the kotal. The camping ground is known locally as Samuch Mulla. In 1880 there was a post at Lataband for 1,000 men. On the N. the Kabul river is distant about 2 miles, and is passable by bridges above Gogamand, some 4 miles down stream, one at the foot of the Samuch Mulla peak and another below, all on the Tangi Gharu road. The camp is not difficult to defend if the three piquet posts, established in 1879, are held. The old post is now in ruins.

The piquet posts are all distinguishable and the walls mostly standing. Some little cultivation, but practically no supplies. From Lataband heliographic communication with Sherpur can

be maintained.

Camping ground.—Probably for a division by locating units on suitable sites where they occur.

Water.—For 2 or 3 infantry brigades with proportion of divisional troops at least, from the Lataband stream, and from several springs, not liable to be cut off and little influenced by seasons.

ROUTE No. 2-H—concld.

General direction W. The road from camp is in good order throughout and at first a gradual ascent fit for wheeled traffic. Leaving Lataband, and crossing a small rivulet, a low kotal has to be surmounted, and then the road leads through small ravines, with trifling undulations. At $2\frac{1}{2}$ miles there is the small native fort of Samuch Mulla, which is the regular Afghan stage. Fair amount of space for camp. Water but no supplies. At $3\frac{1}{2}$ miles a small stream is crossed; another small stream at $4\frac{1}{2}$ miles. The road for the first 6 miles winds along through low hills, and then enters the Kabul valley, here some 8 miles broad and very fertile. By taking short cuts the distance can be reduced by $1\frac{1}{2}$ miles for unladen animals.

The old road which is rough, stony and in some parts steep crosses and re-crosses the new road several times, it is shorter and though fit for mules is not so for wheels. The latter half of the march is across a stony plain until nearing Butkhak the country becomes cultivated, with villages on both sides. At 10 miles cross the dry bed of a stream; no difficulty. At 11 miles Butkhak.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 2, stage 13.

ROUTE No. 2-J.

LATABAND TO TARAKI.

15 miles.

1 stage.

Authority.—Captain Young, 1880.

Fruel.—No details, but several of the hillsides of these ranges are densely wooded.

Fodder.—Fair camel grazing except in winter along the route. Supplies.—Nil.

| to | No. stage and tal dis- ance. | | | DETAILS. | | |
|----|---------------------------------|--------|-----|----------|------------|--|
| | 1 | TARAKI | • • | 15 m. | Mule-road. | |
| 18 | ŏm. | | | | | |

On leaving camp, shown on some maps as Samuch Mulla, the path leads in a southerly direction along the watershed, which lies E. of the Lataband stream. The path winds up and down over the tops of the hills until, at three hours from Lataband, it reaches a place called Tsagai, and the *kuchi* encampment lying in a hollow among the hills. These hills here form the head of the valley of the Lataband stream, and are gently undulating, the whole ground being here open and easily traversed. There is plenty of good water, grass and some fuel.

From Tsagai easy paths run in several directions. One to the E. leads to Seh Baba, another S.E. to Tezin (distant 6 or 7 miles); another to the S. leads over a low ridge and down to the Tezin and Khurd Kabul road (joining it near the Haft kotal near the place called Balutak); a fourth path leads to the S.W. over the same ridge towards Khurd Kabul, passing at one mile from the ridge, the southern end of the Chinari pass. Following the latter path for one hour from Tsagai, the top of the above mentioned ridge is reached. From here a very extensive view is obtained to the S. including the greater part of the Tezin and Khurd Kabul road, including the Haft kotal. The road is apparently distant about 4 miles from the ridge. Three miles

ROUTE No. 2-J—concld.

the Haft kotal in about five and a half to six hours from Lataband. The route by the Lataband stream is only practicable for infantry, there being one place where guns could not be got over. In going along the first route a force would be very conspicuous, but, on the other hand, a good view is obtained of all the surrounding valley; while, in going by the stream, nothing whatever can be seen, and strong flanking parties would be necessary, which would cause the usual delays.

At about 15 miles Taraki, stage 12 of Route 2, on the main metalled road.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 2, stage 12.

ROUTE NO. 2-K.

ALI KHEL TO TARAKI.

Viâ the Kharshatal and Katarai passes.

53 miles.

5 stages.

Authority.—Native reconnoitrer, 1910.

Epitome.

General description.—Part of the most direct route from the Kurram valley to Kabul and an important connecting route between the 2 main Routes 2 and 3.

Road.—Mule road and one much used by villagers of Hariob and Babar, who take wood, etc., to Kabul on ponies and donkeys; difficult route to force in the face of opposition.

The following obstacles are encountered:—

(i) In the first stage the Kharshatal pass (10,000'); southern

All the above passes would normally be blocked by snow from early in December to the end of April, thereby closing this route for that period.

Camping grounds.—For at least one infantry brigade with proportion of divisional troops at each intermediate stage.

Water.—For the above force at each intermediate stage.

Fuel.—Abundant throughout the route from the wooded hill, in the first 4 stages, but appreciably less in the last stage.

Fodder.—Grass procurable at stage 2; camel grazing good (moderate at stage 3) along the route, except in winter, when there is none.

Supplies.—Nothing appreciable at any stage.

| No. of stage and total dis- tance. | DETAILS. | | | |
|------------------------------------|-----------------------|-----|-------|------------|
| 1 | SPIN JUMAAT (9,304'). | • • | 15 m. | Mule-road. |
| 15 m. | (-,,- | | | |

Leaving Ali Khel the road follows Route 3 for 3 miles towards the Paiwar as far as Bian Khel, when it branches off N.E. up the Karshatal valley. The path now enters the hills crossing and recrossing the stream; hills on both sides wooded and difficult; at 8 miles (9,140') the main ascent of the Karshatal pass begins; average gradient 1 in 8, but steeper towards the top. Hillsides precipitous in places, and thickly wooded. The top of the Kharshatal pass (10,000') is reached at 6 miles; this pass would be difficult to capture in the face of opposition; the summit is commanded on both sides by high peaks at a distance of 400×. There is a ziarat on top of the pass. (The Lakarai pass, which is somewhat higher than the Kharshatal, appears to lie about 5 miles almost due N.)

Camping ground.—For 1 infantry brigade with proportion of divisional troops on a good site.

Water.—Sufficient for the above force from the nala mentioned.

Fuel.—To any extent required from the wooded hills within 1 mile of camp.

Fodder.—Good camel grazing except in summer. Supplies.—Nil.

2 BABAR .. 9 m. Mule-road.

(8,200'). Leaving Spin Jumaat the path continues down the nala; the stream is crossed frequently, but the water is shallow. At 3 miles a nala joins in on the left bank; this is known as the Wuch Algad and up it a good path, fit for local camels, leads to Kharoti.

Below this the valley is known as Ghazin. At 5 miles a large dry nala joins in from the E. The path continues down the Ghazin stream, mostly along the left bank, and is quite easy. The valley is about 30^{\times} wide. At $8\frac{1}{2}$ miles the Ghazin joins the Surkhab, which is now crossed by a ford (quite easy, with only $1\frac{1}{2}$ ' of water in September), and the path then goes down the left bank to Babar village (8,200') reached at 9 miles; 45 Ghilzai houses. At the village the Surkhab is not fordable in summer, and the villagers make a rough bridge.

Camping ground.—Sufficient for 1 infantry brigade with proportion of divisional troops.

Water.—For the above force at least, probably more from the Surkhab.

Fuel.—Plentiful within 1 mile of camp.

Fodder.—Grass plentiful in summer, good camel grazing except in winter.

Supplies.—Nothing appreciable.

any stream flowing. At $5\frac{1}{2}$ miles reach the foot of the Kagah Wagah pass, where a path joins in from Hazro in the main Surkhab valley above Babar. The ascent of the Kagah Wagah is steep, the top (11,260') being reached at $6\frac{1}{2}$ miles. The pass lies over a high range separating the Surkhab and Katarai valleys. There is no open ground at the top; there is a very lofty peak to the F., and other peaks to the W. The Katarai is the highest pass on this route. The range is slightly wooded on the northern slope. The descent is by fairly easy zigzags for 2 miles. At the bottom (10,160') the Katarai stream is crossed by an easy ford. There are summer encampments of Ghilzai nomads here, and there is a little wheat cultivation. (The Katarai nala here flows N.E. and is believed to join the Surkhab somewhere near Ghaughiza.)

Camping ground.—For at least 1 infantry brigade with proportion of divisional troops, on a good site on the left bank of the stream.

Water.—Sufficient for the above force and more from the Katarai stream.

Fuel.—Abundant within 2 or 3 miles of camp.

Fodder.—) No details; probably nil, excepting a little Supplies.—) camel grazing in the summer.

4 CAMP RAJAN .. 8m. 4f. Mule-road.

41 m. the road goes up a branch stream, direction W., gradient easy. At 1; miles the stream ceases to flow, and at $2\frac{1}{2}$ miles the nala disappears. The path then climbs the hillside, direction still W., gradient 1 in 8. At 3 miles, the top of the Katarai pass (10,965'). There is a high hill to the W. from which both the Katarai and Kagah Wagah spurs branch off; the hills to the E. are lower. The top is open and stony; no trees. From the pass there are two routes one to the N. and the other to the N.W., the latter is the longer,

a path drops down from here to Tezin. The road now descends along a small nala (a branch of the Rajan nala); descent by easy zigzags. At $6\frac{1}{2}$ miles the nala bed, here a narrow gorge, is entered; hills on left bank very high and precipitous. 7 miles the path ascends the hillside on the right to avoid a very deep and steep gorge through which the nala now runs. This ascent of the right bank is steep and difficult; the hill is precipitous and rocky, and the path runs along a narrow ledge which, however, is just practicable for laden mules; it is probably to avoid this that the longer route from the head of the Rajan nala is usually taken. At $7\frac{1}{2}$ miles the path again descends steeply to the nala, and follows down it at an easy gradient to $8\frac{1}{2}$ miles where the Rajan nala is joined (8,980'). The valley opens out and there is a summer grazing encampment The path which branched off N.W. at the top of the Katarai pass joins in here.

Camping ground.—For 1 infantry brigade with proportion of divisional troops, but site inferior.

Water.—For the above force from the Rajan stream.

Fuel.—Procurable within 1 or 2 miles of camp.

Fodder.—Camel grazing plentiful except in winter.

Supplies.—Nil. ·

5 TARAKI .. 12 m. Mule-road.

General direction N.W. The road now runs

53 m. The road now runs straight down the Rajan tangi, lying in the stony nala bed and crossing and re-crossing the stream; the stones are, however, small, the water low, and there is no difficulty. The valley is only 20 yards wide and the hills on either side are high and steep, their lower slopes being especially precipitous. The tangi ends at $4\frac{1}{2}$ miles (8,080'), and an open, stony plain is entered. A small village (Gul Dara) lies to the left of the road, and at 6

ROUTE No. 2-K—concld.

crossing easy, and path leads by the left bank of what is known as the Khurd Kabul nala to Khurd Kabul, (7,220') reached at 10 miles. The nala bed is highly cultivated.

Khurd Kabul (150 houses); inhabitants Tajiks, is a halting place for kafilas coming from Kabul. From Khurd Kabul the

road runs N.E. to Taraki reached at 12 miles.

ROUTE NO. 3.

PARACHINAR TO KABUL.

Viâ Ali Khel, the Shutur Gardan pass and the Logar valley.

 $103\frac{1}{2}$ miles.

10 stages.

Authority.—Afghan War records and native information to 1912.

Epitome.

General description.—The principal through route to Kabul from the Kurram valley. Owing to the pronounced salient formed by the Indian frontier at the head of the Kurram valley this is considerably the shortest through route to Kabul from any point on our frontier, but the importance which this gives it is out of proportion to the facilities it affords to the advance of an army, as the construction of a cart road over the Paiwar, Surkai, Shutur Gardan and Shinkai passes would be an

the highly cultivated Logar valley; road easy. This route was followed by the Kurram and Kabul Field Forces accompanied by field artillery in 1878-79.

The following obstacles are encountered—

(i) Paiwar kotal (8,531') in 2nd stage; ascent from eastern side very steep, though remains of a good road made by the British in 1879 exist. Pass only temporarily blocked by snow.

(ii) Surkai kotal (10,200') in 4th stage; ascent from eastern side very steep, but soil easy and good, road could easily be made. Normally blocked by snow during

December, January and February.

(iii) Shutur Gardan (11,200') in 5th stage. pass in extremely bad repair (July 1911) and possibly a new alignment necessary if a cart road is to be made. Pass normally blocked by snow from December to March.

(iv) Shinkai pass (about 8,000') in the 6th stage. Ascent from the eastern side though only 500' in length very steep and severe trial to laden animals, but good road could easily be made.

(iv) Bridge over Logar river, $\frac{1}{2}$ mile E. of Zahidabad, 8th stage; bridge in good repair but not suitable for

wheeled artillery.

It was reported, however, in June 1911, that the existing

bridge was to be replaced by a "strong" bridge.

The Shutur Gardan and Surkai Passes being snowbound from December to March, this route should ordinarily be considered as being closed during that period, but it is known that small parties succeed in crossing these passes throughout the year, and Lord Roberts was of opinion that the Shutur Gardan (the highest pass on this route) could always be kept open with special measures.

Fuel.—Practically unlimited supply at all stages, except at stage 5, where wood is scarce, and at stage 6, where there is only a moderate quantity.

Fodder.—Grass abundant except in winter in the Hariob valley and Ali Khel (stage 2); lucerne in considerable quantities during March, April and May at Kushi (stage 6) and at stages 7, 8 and 9 in the Logar valley; khasil for the horses of a cavalry brigade daily during March and April in the Logar valley, stages 7, 8 and 9; bhusa to a considerable extent can be collected from villages commencing at stage 6, and thence forward to Kabul; camel grazing only fair to scarce till the Logar valley is reached, where it is illimitable, but scarce in winter.

Supplies.—Nothing appreciable until Kushi (stage 6); thence to Kabul all supplies for 1 division for at least 3 months could be collected in the rich Logar valley. It is stated that the supplies obtainable in this valley are practically inexhaustible.

| No. of stage and total dis- tance. | | | | |
|------------------------------------|-------------|----------|-------------|-----------|
| 1 | TERI MANGAL | 12m. 4f. | | cart road |
| | | | 10' to 15'. | |

12m. 4f.

From Parachinar the direction is a little N. of W., the route running parallel to, and about 2 miles below, the skirts of the Safed Koh range; road fairly level and crossing numerous stony nalas, but no very deep ravines. At 4 miles, Nurkhai where there is ample water for a large force from a channel leading out of the Shalozan tangi. At $5\frac{1}{2}$ miles the Shalozan villages (5,950'), at the mouth of the Shalozan glen at the head of which is the Masharao pass, on the Safed Koh. Shalozan consists of a collection of villages with an old fort, remains of which are still visible on the plain

Fuel.—Practically unlimited supply obtainable within 1 mile of camp.

Fodder.—Fair camel grazing, except in winter.

Supplies.—Negligible.

From Shalozan there is a route into Ningrahar over the Safed Koh $vi\hat{a}$ the Shalozan tangi and Wrekhmin, over which unladen animals can be taken.

Between the last 2 Shalozan villages, a broad stony nala bed is crossed, which is sometimes rendered impassable by floods for as long as 4 hours at a time. This nala receives the drainage of the Sitaram mountain and as its bed is steep and the catchment area bare, the floods are very sudden and violent, but quickly subside.

The road continues over a fairly level plain intersected by nalas to Paiwar village reached at 9 miles; here there is:—

Camping ground.—For a division and more on the open plain.

Water.—For the above force, at least, from several nalas.

Fuel.—Unlimited supply of firewood obtainable at short notice.

Fodder.—Fair camel grazing, except in winter.

Supplies.—Negligible.

Leaving Paiwar village, the road crosses a series of deep ravines, and passes through a jungle of low ilex scrub. At 12½ miles the Kurram Militia post of Teri Mangal on the W. of the road; post consists of a roofed courtyard and a double-storied keep built of stone, garrison 20 men. Near the post is the Ali Mangal bungalow with an enclosed courtyard. The enclosure wall is of mud and not loopholed nor are there any machicoulis.

Camping ground.*—At Teri Mangal for infantry; camping space 156,500 square yards extensible to 216,000 square yards. At Ali Mangal for mounted troops; camping space 160,000 square yards extensible to the S.

Water.—At Teri Mangal from 2 springs.

(b) Spring 200 yards N. of Teri, supply on 6th June 1909, 80,000 gallons in 24 hours, but on the 7th June 1911 200,000 gallons in that time.

At Ali Mangal for a division from 2 irrigation channels flowing from the Spin Gawai nala, for animals from a third channel 800,000, gallons in 24 hours.

Fuel.—Practically unlimited supply could be collected from the surrounding hills within 500 yards of camp.

Fodder.—Fair camel grazing except in winter. Supplies.—Negligible.

2 ALI KHEL .. 15 m. Camel road 8'. (7,565'). 27m. 4f.

The road now leads direct to the Paiwar kotal, a pass in the range of hills running S.W. from Sitaram peak in the Safed Koh and separating the Hariob valley in Afghanistan from the British valley of Kurram. The summit of the pass is $2\frac{1}{2}$ miles distant. The last mile to the kotal is very steep, but there are remains of a good road, gradient 1 in 9, made during the 2nd Afghan war, which could be repaired for wheeled artillery. Laden carts, it is believed, have never used the road up to the crest. Elevation of Paiwar kotal 8,531'; climate good in summer, but the cold in winter is very severe.

Camping space on the *kotal* 30,700 square yards, but there is only 1 spring of good water sufficient for about $\frac{1}{2}$ battalion; this, however, can be supplemented from the Teri Mangal supply.

Unlimited timber for building purposes in vicinity. In 1908, however, the forests on the Kurram side of the watershed were closed for 20 years to permit reafforestation and to arrest denudation in progress, owing to ruthless cutting in the past. Afghan post called Wucha Margha on the *kotal*, N. of the road and not visible from it: garrison I company infantry.

plateau a path leads to the villages of Ghandi and Zabardast Kala, the latter on the main road from the Paiwar kotal to Ali Khel and the Shutur Gardan pass.

The Paiwar kotal could be easily defended on the Afghan side from a direct attack from the E. or Kurram side, as the steepness of the hillsides allows of but few approaches, and these could be defended by a few men. On the other hand, an attack from the W. by an enemy advancing up the Hariob valley would be difficult to guard against as the formation of the hills affords facilities for turning the position. The country to the N. is bounded by the steep slopes of Sitaram, the highest peak of the Safed Koh, elevation 15,620'; while to the S. the ridge is crossed by the Istiar and Starimandar kotals, and the Mangiar or Tsapri Pass descends to the Kurram river. The latter pass is the easiest, though the most circuitous.

The Spin Gawai kotal is far less capable of defence from the Afghan side, as the approach to it lies through a comparatively open valley, and is not very steep except close to the summit. But the path leading to it from the Paiwar village (up the Spina Shagga) was found by General Roberts' turning force to be extremely difficult marching, the nala being nothing but a mass of stones heaped into ridges and furrowed into deep hollows by the action of water: the infantry marching by night took 8 hours from Habib Kala to the foot of the kotal. A line for the

proposed cart road has been surveyed and a path cut.

The road descends from the Paiwar kotal* to the Hariob valley by an easy gradient of about 1 in 30, the road at first passes through a narrow defile commanded on each side at about 150 yards by low, pine-clad hills which could be easily traversed by infantry. These hills are themselves commanded by other and higher ones to the N. and S. At 13 miles from the kotal, on the left of the road are springs of good water from which the garrison was supplied during the war. At these springs a small stream

grassy basin about 300 yards in diameter, narrowing at its eastern end, through which the stream from the springs finds exit between steep banks about 10' high. The road runs through a cutting here on the stream's right bank, and all arms except infantry would have to confine themselves to it for about 70.× Having traversed this distance the hills on each side recede from the road and for about 1 mile the route runs along fairly open country to the Hariob stream which it crosses by a rough bridge with stone (kachcha) piers. This bridge is liable to the action of floods. The banks of the Hariob stream are low and it affords no obstacle save when the snows are melting.* The average height of the Hariob valley is 7,500', and in winter snow often lies thickly on the ground preventing communication between villages.

Having crossed the stream, the road bifurcates, the northern road being the longer by about 1 mile.

- (i) The southern or river road follows the right bank of the Hariob, running S.W., to Bian Khel, being commanded throughout by the pine-clad heights of the Mangiar range.
- (ii) The northern road takes a line W. for about $2\frac{1}{2}$ miles and then turns S.W. It is not commanded by the Mangiar heights.
 - (i) River road.—From bifurcation, $2\frac{1}{2}$ miles from Paiwar kotal, continue along right bank of Hariob under Zabardast Kala, which commands it; hence for next mile over stony ground. At 7 miles pass the village of Kotkai and shortly after Sharif Kala where road crosses mouth of Shergul nala. At $7\frac{1}{2}$ miles cross mouth of Lalidar stream at its junction with the Hariob. At 9 miles the road passes under the village of Stir Kala; at $9\frac{1}{2}$ miles ascends by steep cuttings of 200 yards (too parrow, for suns meeting

S. and by the right bank of the Hariob, and the

various villages beneath which it passes.

(ii) Northern road ascends from the bed of the Hariob, by a zigzag of easy gradient, and passes hamlet of Zabardast Kala, consisting of a small enclosure, forming a detached fort with dilapidated tower. Campingground for two infantry brigades; used by Afghan troops as a cantonment prior to 2nd December 1878. At 5 miles cross Sargal stream, bed about 200 yards wide, banks low; water runs in several channels, the main one being crossed by bridge similar to above (see Hariob); no obstacle. At 7 miles Bilut nala, crossing which road runs S. This nala has precipitous banks about 15' high; descents and ascents by gradients of 1 in 17. At $8\frac{1}{2}$ miles passes through village of lower Bilut on left bank of Lalidar stream consisting of about 5 houses, each detached and forming a small fort in itself. This is typical of all Jaji villages. About 800 yards up this stream and on the same bank is the village of Bilut at the mouth of the Lakarai pass, Lalidar stream is about 200 yards wide, with precipitous banks, of which the left commands the right. The road descends into the nala by a zigzag of 60 yards, gradient 1 in 20, and leaves it by a ramped ascent 3 mile long, cut at an easy gradient in the right bank of the nala parallel to its course. This ascent is commanded by the village of Petta on the right bank of the nala and by that bank itself. About 10 miles pass Ali Sangi, a hamlet 100 yards to right of road beyond a small nala. From opposite this village the road traverses a high, uncultivated plateau on which (on left of road) is ample camping-ground

wide, banks high, steep, and grassy. Water supply fair, from springs in the nala banks. This northern road passes through terraced fields for the most part, and all wheels and animals would have to keep to it between Zabardast Kala and Bilut; especially to the N., however, cavalry might work, though not with facility, the ground being very stony and much cut up by nalas. Bian Khel, near which the first, or river, road rejoins the northern road, is a collection of small hamlets, like all Jaji villages. From Bian Khel a route leads through Ali Sangi up a stony, rough, narrow defile to the crest of the Karshatal pass, between pine-clad hills, craggy towards the crest; whence a route leads to Kabul viâ the Rogun valley, Chakari and Khurd Kubul. The road to the crest is bad, but practicable for lightly laden baggage animals. Little is known of the route beyond.

From the junction near Bian Khel the road continues along the right bank of the Hariob to within 200 yards of Ali Khel, where it turns off to the right.

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At 13 miles pass under Ahmad Khel opposite to which village a track leads $vi\hat{a}$ the Istiar kotal to Kachkina in Kurram, passable for mules and infantry and forms an alternative route to the Paiwar. At 15 miles the road, which from the junction near Bian Khel is commanded by the spurs of the Mangiar range, passes through the village Ali Khel, situated on the right bank of the Karaia stream which is the name given to the Kurram river above Kharlachi. Ali Khel was (1878) a village of the usual Jaji type and consisted of some 50 enclosures but is now said to contain 600 houses.

Just N. of Ali Khel village the road bifurcates, that to the

all were commanded within a range of 2,000 to 3,000 yards from many points, especially from the high ground on the right bank of Hazardarakht stream. The most southern plateau was also commanded by a conical hill near the junction of the two streams, which must be occupied. The Hazardarakht is here wide and stony, fordable in most places during dry weather; the Karaia similar but narrower. Lord Roberts was of opinion that this is a very strong and the only available position in the Hariob valley. It commands the entrance to the defiles leading to the Shutur Gardan and the approaches up the Karaia stream from the Mangal country, but the camp would be untenable against a civilized enemy with rifles and rifled guns if they should once obtain possession of the neighbouring heights.

The only Afghan troops in the Hariob valley consist of the garrison at Ali Khel, which furnishes the small infantry detach-

ment at the Paiwar; see note at end of stage.

Camping ground.—For a division on the 3 plateaux lying in the angle between the Hazardarakht and Karaia streams.

Water.—For a division from these two streams.

Fuel.—Wood plentiful within 1 or 2 miles of camp.

Fodder.—Grass abundant except in winter; camel grazing to a considerable extent, but on hills difficult of access.

• Supplies.—Nothing appreciable.

The following routes converge on or radiate from Ali Khel:-

Route 2-E from Chartut (Route 2-D., Stage 1).

Route 2-K to Taraki (Route 2, Stage 12).

Route 3-A from Kharlachi.

Route 3-B from Parachinar.

Route 3-C to Loi Kila (Route 4, Stage 1).

Route 3-D to Ahmad Khel (Route 4 Stage 2).

Note.—A fortified cantonment has been built at Ali Khel; garrison in June 1911 consisted of 2 battalions infantry and 1 mountain battery (4 guns), from which is furnished the detachment of 1 company infantry for the post at the Paiwar kotal.

stream and follows left bank. Valley at first about 2 miles broad but narrows continually and at Rokian (5 miles) it becomes a narrow defile 250 yards wide with steep slopes on either side. The road through the Rokian defile is above flood level at all the narrowest places and consequently is not liable to interruption by floods. At $5\frac{1}{2}$ miles the Jaji village of Shamu Khel. It is reported that there is a slope near the village on which a large force could encamp, with abundant water from the river. Immediately after Shamu Khel the worst bit of the road is met with, as the defile is confined and commanded by broken and high hills. At about $6\frac{1}{4}$ miles, valley opens out once more and road continues along the left bank to Dre Khula (30 houses) reached at 9 miles.

Camping ground.—For one infantry brigade with proportion of divisional troops; 2 or 3 battalions in the cultivation, the remainder of the brigade at the junction of the 2 streams; camping ground is commanded by several hills or spurs which would have to be piqueted.

Water.—For at least two infantry brigades with proportion of divisional troops from the Hazardarakht stream.

Fuel.—No details, but it is probable that the higher hills in this valley are covered with pine trees.

Fodder.—Camel grazing scanty; nil in winter.

Supplies.—Nil.

From Dre Khula Route 3-E. leads N.W., to camp Rajan (Route 2-K, stage 4), and as this latter route joins the main Route 2 to Kabul at Taraki, an alternative direct road to Kabul viâ Surkhab is made.

4 KASIM KHEL .. 11 m, 4 f. Camel road fit for wheeled artillery, easily convertible for carts.

Road turns S.W. and runs generally along the left bank of the Hazardarakht stream, occasionally dipping down into

reach Jaji thana, a small khasadar post, garrison 6 men (June 1911).* Just beyond this the Tabbi nala comes in on the N. (vide note at end of stage). Here the hills on either side get more bare and open. Infantry protecting the right of advance could gain high ground W. of the Tabbi nala and keep along it up to the Surkai kotal. At the seventh mile, the hills close in a little and become steeper but open out again at the eighth mile, near where the old Karatiga thana is passed, and the Loi (or Lewah Algad) ravine runs in from the S. At this point opposition might be expected as the nala extends far back and the ground is much broken; the position should be held until all baggage has pased. At just over 10 miles the ascent to the Surkai kotal is reached, at the foot of which there is a small old thana. Up to this point the road is good and passable for all arms, up a general gradient of about 1 in 25, in a few places cutting and walling would be necessary, but for the rest only a little clearing.† For a portion of the ninth mile, the road to be made good would require some blasting, building, and excavation. (May 1879.) The rise to kotal is from 250' to 300'. The road now is steep with an average slope of 1 in 9 and some sharp turns, and it would be difficult but not impossible to drag guns up it. In September 1879 a battery of Royal Horse Artillery was man handled to the top. A good road could easily be made as the soil is easy. Summit of the Surkai kotal. Kotal is 10,200'.

The kotal position is untenable from the Afghan side without artillery and even then can be turned by the Tabbi route (vide Note at end of stage). But the hills to the S. of the kotal might, if held, form an obstacle to the advance until the higher hills on the left bank of the stream had been seized. Behind the kotal and to the N. of it, is a hill commanding or covering it, occupied by a small Ghilzai tower; this is again com-

which lies between the Surkai and Shutur Gardan kotals and is the key of the position between them. The road passes along between these two hills and round the N. of the larger or Kamran Tang. The descent from the Surkai ko'al to the Surkai or Surkhab valley is more gentle, the fall to the open valley being about 100 feet. But about 300 yards from the summit, just at the bottom of the slope, the road originally wound round the S. side of a hill, with a deep khud on the left and a track, in some places, barely wide enough for gun-carriages to pass. The steepness of this short decline rendered it by far the worst part of the whole road; the roadway here was about 7 feet wide, covered with loose stones and there was nothing to prevent gun-carriages goin over the khud at the bottom, where the road turned sharp to the right round a big rock. This part of the road was afterwards improved, but by now (1902) may have relapsed to its former state again. From the bottom of the descent the road for about a mile lies across an almost level plain to Kasim Khel.

Camping ground.—For a division.

Water.—For a division from the Surkhab.

Fuel.—Procurable to an appreciable extent within 2 or 3 miles of camp.

Fodder.—Fair camel grazing except in winter, Supplies.—Nothing appreciable.

Note.—The Tabbi nala offers a route turning the Surkai kotal, but is impassable for baggage or a large number of troops. If opposition in force was not met with, good infantry could gain the high ground by the spur to the S. of the nala and mountain guns could be passed up the nala over the kotal into the Surkai valley. The route is as follows:—From Jaji thana a steep path ascends into the Tabbi nala thence fairly level, going along a small footpath crossing and recrossing the stream. At about two miles reach a steep zigzag ascent of about 600 feet in 600 yards to the very narrow rocky Tabbi kotal, and then down a steep and stony path to fairly open ground again. At about 4 miles the nala becomes very difficult, only a few yards wide with steep and craggy side, and the bed of the stream blocked with boulders. A led horse could only be taken along this bit, which lasts for about a mile, with difficulty. The Loi Koi valley is then reached, and the going is easy but mules should skirt the hills to the E.

The road now runs S.W. direct to the Shutur Gardan, whose summit is distant about $2\frac{1}{2}$ miles. At $\frac{1}{2}$ mile on the right of the road, Hazara Thana, 150', square, in fair repair during 2nd Afghan war. The road up to the crest of the kotal is easy with a general gradient of 1 in 12, increasing as the top is neared. The hills on either side are open, bare and easy of ascent and no important opposition could be made; at the top of the pass there was a small watch tower (1879). A grand and extensive view of the Logar valley and the country beyond is obtained from the summit of the Shutur Gardan, height of which is 11,200'. In July 1911 it was report d that the road on both sides of the pass was in extremely bad repair, and that in order to make a cart road over the pass a realignment would probably be necessary, but that the pass was then negotiable, but difficult for "plain" camels.

Almost immediately after the pass is surmounted the road turns sharp round to the left, and winds down a spur, which runs out in a south-westerly direction, by a very rough path. The descent is diffic It and presents a striking contrast to the ascent as the footpath is steep and tortuous, though practicable for all baggage animals. Gun-carriages were taken down it without much difficulty, but it would be almost impossible to take guns up under similar conditions. As the soil consists generally of disintegrated rock, the path could, with slight manual labour, be made into a fair road for wheeled traffic, were a cutting made into the side of the hill with the outer bank supported by stones. is not procurable on the spot. The descent is bout $1\frac{1}{4}$ miles in length, and merges into the Dobandi nala, which carries off all the water of the neighbouring gorges running down from the Safed Koh. At a point about 1 mile from the bottom of the pass at Akhund Khel the nala, whose bed forms the road, runs between precipitous rocky cliffs about 80' high, 21' broad, and 120' long. Infantry could move on either side, on the high ground

There is little water in the stream and apparently from there being no sign of a high water mark the road is rarely impassable from excess of water.

Camping ground.—For one or two battalions only, on a very bad site.

Water.—For at least 1 infantry brigade with proportion of divisional troops from the Dobandi stream.

Fuel.—Scanty.

Fodder.—Fair camel grazing except in winter. Supplies.—Nil.

6 KUSHI .. 7 m, 4 f.—Camel road.

(7,829')
63 m, 4 f.

Leaving Dobandi the road runs for about $\frac{3}{4}$ mile nearly due W., when it bends sharply to the N., and leaving the bed of the stream leads direct for the Shinkai kotal. Although the road leading to the summit of the pass is only about 500^{\times} in length, still the ascent is steep and a severe trial to laden animals. The steep ascent with its sharp turns took the battery of Royal Horse Artillery in 1879, 5 hours to accomplish. A good road could easily be cut in 3 or 4 zigzags. There is a watch tower, built by the Babar Ghilzais to mark their boundary, about 500^{\times} from the crest of the pass on the Kushi (W.) side.

The report dated August 1911, on the road over the blinkai pass stated that it was in fair order and mertly required clearing, and building up or cutting back, where washed away, and that it was then fit for "plains" camels. From the top of the kotal to Kushi is about $5\frac{1}{2}$ miles and the decline very gradual. On the right of the road running down from the foot of the Ghilzai hills lies the extensive barren plain of Dasht-i-Surkhab. Kushi lies on the left bank of the Dobandi stream, and contains 300 houses in numerous walled enclosures or forts, and is surrounded by

Fuel.—A limited supply procurable within 2 or 3 miles of

camp.

Fodder.—Lucerne and clover grass in considerable quantities during March, April, and May; about 2,000 maunds bhusa normally available; camel grazing scanty; nil in winter.

Supplies.—About 2,000 mounds unground wheat, and barley

normally available, apricots in large quantities in season.

NOTE.—As an illustration of the difficulties of this march, it is worthy of note that the baggage of the embassy under Sir Louis Cavagnari, which was laden on 32 camels and 200 mules, left Kasim Khel at 5 A. M.on the 21st July 1879 and only reached Kushi at 4 P.M. that afternoon.

7 ZARGAN SHAHR 7 m. Unmetalled cart road. (6,350')

70 m, 4 f.

Leaving Kushi the road turns N.W., and runs over the Dasht-i-Surkhab. After 3 miles along a plateau the road descends into a broad dry nala where water is never deep and whose banks are ill defined. The distance between the road and the Ghilzai hills is about 4 miles. At 7 miles the large Tajik village of Zargan Shahr (1,000 two storied houses). Here there is a:—

Camping ground — For a division.

Water.—For the above force from several karezes, and from a stream 3 broad, 15" deep (April 1911) rising in the hills to the W., and flowing through the village.

Fuel.—Procurable to a considerable extent within 1 mile

of camp.

Fodder.—Khasil in March and April, daily, for the horses of a cavalry brigade; lucerne in considerable quantities during March, April and May; about 2,000 maunds of bhusa normally available; camel grazing unlimited; scarce in winter.

Supplies.—About 2,000 maunds unground wheat and barley,

normally available.

From the Zargan Shahr Route 3-F, leading S.W. to

spur ending in Kalagai peak, which is 2,000' above the plain, and which lies three miles to the N. of the first. Zahidabad lies at the northern end of this plain, which is well cultivated, being intersected by the Logar river, and contains the large Ghilzai villages of Kuti Khel and Sangar Khel, besides numerous other villages and forts. On the left bank of the Logar river, which is generally within from 1 to 3 miles of the road, some good villages are visible, particularly that of Muhammad Aga, which is inhabited by a Persian-speaking community. The Ghilzai hills are about 4 miles distant on the right (E.), a low, disconnected range intervening between them and the Logar river on the left. Two unimportant Ghilzai forts are passed on the right about half-way. The last 3 miles into Zahidabad lie over ground with a slight descent towards that village with the spur bounding the Dasht-i-Surkhab on the S., lying close up to the road to the right (E).

Half a mile before reaching Zahidabad, the Logar river is crossed by a bridge, usually in good repair and practicable for infantry and laden animals but not for wheeled artillery. It was reported in June 1911, that this bridge was to be replaced by a "strong" bridge, i. e., probably one suitable for the Amir's motors. Zahidabad is a large village on the left bank of the Logar river, containing a small square fort; inhabitants Tajiks and Ahmadzai Ghilzais.

Camping ground.*—For a division.

Water.—For a division of more from the Logar river.

Fuel.—No information.

Fodder.—Khasil for the horses of cavalry brigade daily in March and April, lucerne in considerable quantities during March, April and May; about 500 maunds bhusa normally available; camel grazing unlimited, scarce in winter.

Supplies.—About 500 maunds unground wheat and barley normally available.

The road is excellent all the way, and crosses the Dasht-i-Saka, a level plain about $3\frac{1}{2}$ miles broad, which is entered after descending, by an easy gradient, a spur called Sum-i-Duldul at about $4\frac{1}{2}$ miles. At the southern end of this plain and on the left (W.) of the road is the large Tajik village of Rahmatabad, and on the right bank of the Logar river, which is now E, of the road, lies the large Ghilzai village of Musai (or Loi Musa). The road to Chehil Dukhtaran diverges to the left about half-way across the Saka plain, at the northern end of which is the village of Namunias, situated at the southern end of a spur running W. and S. Between the road and the river are lofty spurs except at Rahmatabad, where the plain is open to the E. Hills also bound the view to the W., at a distance of 2 or 3 miles. For the last 2 miles into Chaharasia the road passes over a perfectly level plain.

Chaharasia (1,200 houses) is situated on the southern slope of a low range, running across the plain from E. to W. A mile to the E. flows the Logar river; but the village is irrigated from the Kabul river, which flows immediately behind the low hills N.W. of the village, a water-cut being taken through a gorge in the low range above mentioned. It is a very rich, well cultivated village, possessing numerous gardens, orchards and vineyards, and there are many trees. The Kabul Government often send out troops to this village for a season. The population is a mixed one of Afghans and Tajiks. N.E. of Chaharasia, and beyond the Logar river, rises a prominent sharp-pointed mountain called Sakh-i-Baranbai, on the eastern side of which is the Khurd Kabul pass.

Camping ground.—For a division on open plain S. of village near main road.

Water.—For a division from the water-cut referred to, supplemented by the Logar river, 1 mile distant.

Fuel.—Wood to some considerable extent probably procur-

10 KABUL .. 11 m. Unmetalled cart road. (5,895')

103 m, 4 f.

From Chaharasia to the low ridge of Khairabad, crossed at 4½ miles, the road is level and good, and crosses a plain, over which all arms can manœuvre. The Khairabad kotal is about 100 feet above the plain and presents no difficulties. At 6 miles the road enters the Sang-i-Nawishta, a defile about 13 miles in length, through which it is confined between a lofty hill on the left and the Logar river on the right. The defile is commanded on the right by inaccessible and precipitous cliffs, and though practicable for all arms, it offers cramped passage for a large force. At 7 miles reach Bin-i-Hisar, where there is room for a camp, but the ground is much cut up by irrigation channels. At 9 miles pass the Bala Hisar on the left; the fort, with the exception of the citadel, is now in ruins. From thence to Sherpur is about $1\frac{3}{4}$ miles; for the most part a shady road. An alternative and perhaps better road from Chaharasia to Kabul, inasmuch as it is less confined or commanded, runs to the W. of the road described. This road runs due N. for 4 miles till it reaches the Kabul river, whose right bank it then follows passing through the Deh Mozang gorge at 10 miles. This road is also an unmetalled cart road and is approximately the same length as the road through the Sang-i-Nawishta.

Camping ground —

Water.—

Fuel.—

Fodder.—

Supplies.—

Vide Route 1, stage 13.

The following were the principal signalling stations along this line during the Afghan war of 1878-80:—

Paiwar kotal.—Hill to the N. connects with Ali Khel via

the neak S of Zahardagt Kala

get to the highest point of the downs S. of kotal the first day, whence they will be able to select a suitable station. From this same place at the Shutur Gardan can be seen Shinkai kotal, the highest point on the ridge above Kushi the hil W. of Zarghan Shahr, and the hill S. W. of the camping ground at Zahidabad more properly called Safed Sang. On the highest point of the ridge S. of Kushi, Sher Darwaza, a gorge near Kabul, is easily obtained.

To get the station on Matungi 3 hours should be allowed; for that at Karatiga, three-quarters of an hour; that at Shutur Gardan, three-quarters of an hour; and that t Kushi, half an hour.

ROUTE NO. 3-A.

KHARLACHI TO ALI KHEL.

19 miles.

2 stages.

Authority.—Reconnaissances from Ali Khel and Paiwar kotal, 1879.

Epitome.

General description.—An important connecting route between Routes 3 and 4, two of the main through routes from the Kurram valley into Afghanistan. The route practically throughout its course follows the Istiar ravine, which is commanded on both sides by hills covered with dense forest of pine trees, affording excellent cover both to a force advancing and to an enemy opposing an advance. The heights on both sides could be crowned and the pass thus rendered secure.

Road.—Camel road throughout and one much used by the

Water.—For the above force at Istiar Bala, from the Istiar river.

Fuel.—Inexhaustible supply throughout from the pine forests on both sides of the ravine.

Fodder.—No details; probably camel sazing for a few hundred camels along the route.

Supplies.—Practically nil along the route.

| No. of stage and total dis- tance. | of stage and total dis- | | |
|------------------------------------|-------------------------------|------|-------------|
| 1 6 m | CAMP near ISTIAR BALA. | 6 m. | Camel road. |

General direction N.W. Leaving Kharlachi the road moves up the Istiar valley crossing and recrossing the stream at several points. At 2 miles the Mangal village of the Istiar Pain (30 houses), which commands the entrance from the Istiar kotal to the plain; this village is at the highest point of a glacis-like slope with low rounded hills on both flanks, and forms a remarkably strong position for the defence of this valley.

At Istiar Pain Route 3-B joins this route from the N.E.,

coming from Parachinar 111 miles distant.

The road continues up the ravine, whose sides are densely wooded. The gradient is slight, $1\frac{1}{2}$ ° to 2°, the track well-worn though no steps have been taken to improve it artificially. At 6 miles Istiar Bala (40 families of Hasan Khel Jajis).

Camping ground.—For 1 infantry brigade with proportion of divisional troops, 1 mile E. of the village. General Roberts

ROUTE No. 3-A-concld.

2 ALI KHEL 13 m. Camel road. (7,565').

General direction, N.W. The track continues up the densely wooded Istiar ravine; at the 2nd mile the path zigzags up a narrow, dangerous ravine and in the 3rd mile has 2 difficult places each about 100 yards long. The track now zigzags up the right slope of the ravine to the crest of the Istiar kotal (9,700') reached at 5 mile; from Istiar Bala. The Istiar kotal is a pass in the Mangiar range, which forms the water-parting between the Hariob and the Kurram valleys and is the most notable saddle of this ridge; its rocky surface is almost bare of trees. After crossing the kotal the first 250 yards is down a steep zigzag which could be improved without difficulty. At about 2 miles from the crest the Istiar nala widens and the Dre Khula algad joins this ravine from the S, from the kotal of the same name 2 miles distant (see note). About a mile further on, i.e., at 8 miles, the road passes between high and rocky cliffs, the ravine narrowing to 20× to 30× for about $\frac{1}{4}$ of a mile, when it attains an average width of $100 \times$. The height of the ravine where it is joined by the Dre Khula algad is 8,400', and the hills all along this section are steep and thickly wooded. The road continues down the valley, Ali Khel being reached at 13 miles.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

See Route 3, stage 2.

ROUTE NO. 3-B.

PARACHINAR TO ALI KHEL.

28 miles.

2 stages.

Authority.—Reconnaissances from Ali Khel and Paiwar kotal, 1879.

Epitome.

General description.—An alternative route to the first 2 stages of the main through Route 3, and approximately the same length. It joins Route 3-A, in the 1st stage at Istiar Pain $(11\frac{1}{2})$ miles) and thereafter the 2 routes are identical.

Road.—Camel road throughout. The Istiar pass (9,700') in the 2nd stage is the only obstacle encountered and may be blocked after heavy fall of snow, otherwise route open through-

out the year.

Camping ground.— Water.— Fuel.— Fodder.— Supplies.—

See Epitome to Route 3-A.

| 1 1 | CAMP near | 15 m. Camel road. | |
|----------------------------|-----------|-------------------|--|
| and total dis- tance | | DETAILS. | |
| No. of stage | | | |
| | | 140 | |

ISTIAR BALA.

15 m.

Leaving Parachinar, the road crosses the Kurram plain, direction S.W. At 8 miles, the Spin k'nwar, a tributary of the Kurram river, is crossed; no difficulty but stream is liable to spates in spring though never impassable. At 8 miles the Mangal village of Burkhi S. of the road; at 111 miles this route joins Route 3-A at the village of Istiar Pain,

ROUTE No. 3-B—concld.

2 ALI KHEL (7,565')

13 m. Camel road.

28 m.

This stage is identical with stage 2, Route 3-A.

ROUTE NO. 3-C.

ALI KHEL TO LOI KILA.

15 miles.

1 stage.

Authority.—2nd Afghan War records, 1879; native surveyor, 1911.

Epitome.

General description.—A connecting route between Routes 3 and 4, two of the main through routes from the Kurram valley into Afghanistan.

Road.—Practicable for lightly laden hill camels throughout. The only obstacle encountered is the Sapri (Sappari) pass (9,079'), crossed in the 1st stage; pass temporarily blocked after heavy falls of snow, otherwise route open throughout the year.

Camping grounds.—No intermediate stage.

Once the Sapri pass is crossed (at 3 miles), there is sufficient water for at least 1 infantry brigade along the road to the end of the stage.

Fuel.—Plentiful from the wooded hills throughout this route.

Fodder.—No details; probably camel grazing for 200 to 300 camels along the route.

Supplies.—Nil along the route.

ROUTE No. 3-C—concld.

wooded valley. At $1\frac{1}{2}$ miles village of Maran Sapri (30 houses); valley here overlooked from the W. by the Utmandeha peak (8,496'), a trigonometrical survey point. The track now zigzags* up the Sapri (Sappari) pass, the crest of which (9,079') is reached at 3 miles. Here this route joins Route 4-B, which it follows down the Mangiar nala to Loi Kila, which is the first stage of the main through route from Karlachi to Kabul, Route 4 viá the Mirzakai and Altimur passes.

Camping grounds.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 4, stage 1.

ROUTE NO. 3-D.

ALI KHEL TO AHMAD KHEL.

13 miles.

1 stage.

Authority.—2nd Afghan War records, 1879; native surveyor, 1911.

Epitome.

General description.—A connecting route running down the Karaia (Kurram) valley, between Routes 3 and 4, two of the main through routes from the Kurram valley into Afghanistan.

Road.—Practicable for camels and could easily be made passable for wheeled artillery. No obstacle encountered along the route, which is open throughout the year.

Camping grounds.—There is no intermediate stage.

Water.—For 2 or 3 infantry brigades at least with proportion of divisional troops from the Karaia river, along the whole route.

Fuel.—To an appreciable extent from the hillsides which are

ROUTE No. 3-D—concld.

| No. of stage and total distance. | DETA | DETAILS. | | |
|----------------------------------|-------------------------|----------|-------------|--|
| 1 13 m. | AHMAD KHEL $(6,950')$. | 13 m. | Camel road. | |

Leaving Ali Khel the road runs S.E. down the right bank of the Karaia, the river-bed here being about 60^{\times} wide. The road for the most part to Bara Karmana, 4 miles, passes through cultivation and would require repairs before being passable for wheeled artillery. Other arms and baggage animals would proceed along the river-bed. At $2\frac{1}{2}$ miles the Jaji hamlet of Kotkai on the right of the road. Thence the valley narrows somewhat till at Karmana, reached at 4 miles, valley is only about 200^{\times} broad. Stream here in April 1911 was 20^{\times} to 30^{\times} broad, 2' to 3' deep with firm bottom. Karmana consists of 300 two-storied houses whose inhabitants are Hasan Khel Jajis. This route then follows route 4-B down the Karaia valley to Ahmad Khel, reached at 13 miles.

Camping grounds.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 4, stage 2.

ROUTE NO. 3-E.

DRE KHULA TO CAMP RAJAN.

22 miles.

2 stages.

ROUTE No. 3-E-contd.

Road.—It is known that this route is used by traders and it is said to be practicable for horsemen and laden mules. The Mula Khak and Ghorband passes crossed in stages 1 and 2 respectively are the only obstacles encountered, but little is known of these passes though it is reported that they present no serious difficulty to laden mules. It is believed that this route is open throughout the year.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Nothing definitely known about camp Surkhab, the intermediate stage, except that kafilas regularly halt there.

| No. of stage and total dis- | DETAILS | • | | |
|-----------------------------|---------|---|---|--|
| - | | | - | |

1

CAMP SUR-KHAB.

11 m. Mule road.

11 m.

Leaving Dre Khula the road runs N.W. up

the Rokian nala. At 3 miles Ghogazai, a few scattered hamlets, on the right of the road. The road then crosses a range of hills by the Mula Khak pass, the crest of which is passed at about 6 miles and descends into the Surkhab valley.

At about 11 miles reach the Surkhab near its source at a point where it is joined by a stream or algad from the N.

Camping ground.—No details. It is probable that a suitable camp for at least 2 or 3 battalions could be found near the junction of these 2 streams, as kafilas encamp here.

Water.—From the 2 streams referred to for the above force and more.

Fuel.—No details.

Fodder.—

ROUTE No. 3-E-concld.

pass is commenced; the summit is reached at 5 miles; no difficulty; the track then descends into the Rajan valley, camp Rajan being reached at 11 miles where Route 2-K from Ali Khel to Taraki via the Karshatal and Katarai passes, is joined.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 2-K, stage 3.

ROUTE NO. 3-F.

ZARGAN SHAHR TO PATKHAI ROGHANAI.

17 miles.

2 stages.

Authority.—2nd Afghan war records, 1880; native surveyor, 1911.

Epitome.

General description.—A connecting route between the 2 through Routes 3 and 4.

Road.—Camel road, 8' to 12', probably easily convertible to a cart road. The Logar river crossed twice by wooden bridges and the Sarkh river forded in 2nd stage. In all these cases interruptions liable in case of floods, as bridges are only 3' above waterway. These are the only obstacles encountered. Route open throughout the year.

Camping ground.—For linfantry brigade with proportion of divisional troops at Hisarak, the intermediate stage.

Water.—For a division or more from the Logar river at Hisarak.

ROUTE No. 3-F-contd.

| No. of stage and total distance. | | DETAILS. | |
|----------------------------------|---------------------|----------|-----------------------|
| 1 11 m. | HISARAK (6,412') | 11 m. | Camel road 8' to 12'. |

Leaving Zargan Shahr the road runs S.W. and passes at 1 mile the famous ziarat of Khwaja Sadar Ulla a few hundred yards W. of the road. At 1 mile the ascent of the Kotal-i-Ashabi is commenced, gradient 1 in 15. crest (6,412') is reached at $1\frac{1}{2}$ miles; the ridge here is $25\times$ broad and would form a good signalling station between Zargan Shahr and Hisarak. The descent of the pass on its S. side is if anything easier than the northern ascent and wheeled artillery could be taken over the pass without difficulty. At 3 miles Dado Khel (350 houses) whose fields are irrigated by karez in the hills to the E. The road now turns due W. and heads direct for the main Kabul-Altimur road which is crossed at 5 miles at Purak (400 houses). Direction changes once more to S.W. till a state sarai of the usual pattern is reached at 6 miles, whence road runs due S. to Hisarak (500 double-storied houses) lying on the right bank of the Logar river.

Camping ground.—For 1 infantry brigade with proportion of divisional troops.

Note.- From Hisarak to Kala Durani (stage 4, Route 15), viá the Surkh

Bedak pass, 23 miles.

Road good over plain, practicable for field guns. Pass Shuluk at 9 miles. From here the track continues in a north-westerly direction over a barren plain called Chil Pakan; the ground is undulating but perfectly practicable for all arms until within about 300 yards from the crest of the Surkh Bedak pass, when the rise becomes too steep for field guns. The soil is easily worked, and there would be no difficulty in making a road up to the top. Distance from Shuluk 8 miles.

ROUTE No. 3-F—concld.

Water.—For a division or more from the Logar river. Fuel.—Plentiful.

Fodder.—Khasil in March and April for the horses of a cavalry brigade; about 1,000 maunds bhusa normally available; excellent camel grazing except in winter, when it is scarce.

Supplies.—About 1,000 maunds unground wheat and barley

could normally be collected here.

From Hisarak a camel road 8' to 12' running due E. strikes the main Kabul-Altimur road at 1 mile.

A second road, similar to the above, leads S.E. to Patkhai Shahana, distant 2½ miles, on the Kabul-Altimur road.

PATKHAI RO-6 m. Camel road 8' to 12'. GHANAI

17 m. (6,381') General direction S.W. At ½ mile cross

the Logar river by a wooden bridge, fit for carts, 40×long 10' roadway, 3' above water, supported on piers of stone and earth. Roadway consists of branches and earth.

Road now runs parallel to the river which is about 200× distant. On the right (W.) of the road is a low sandstone range 100' to 200' high. At 2½ miles Saiyid village of Uni Saiyidan (180 double-storied houses). At 3½ miles recross the Logar river by a bridge, very similar to the bridge near Patkhai Roghanai. River is 10' to 12' deep here. Road now turns due W. and at 5 miles the Sarkh river is forded; river 15× wide, about 2' deep, current 4 miles an hour, sandy bottom, banks steep and 8' to 10' high; river unfordable when in flood, At 6 miles Patkhai Roghanai.

Camping ground.—Probably for a division. Two infantry

brigades camped here together in August 1880.

Water.—For a division or more from the Logar river.

ROUTE NO. 3-G.

ZAHIDABAD TO KALA AMIR.

Viâ the Waghjan defile.

 $34\frac{1}{2}$ miles.

4 stages.

Authority.—2nd Afghan war records, 1880.

Epitome.

General direction.—A connecting route along the left bank of the Logar between the main through Routes 3 and 4, followed by the cavalry brigade of the Kabul-Kandahar Force* 9th—12th August 1880.

Road.—Camel road, convertible to a cart road without much difficulty. Waghjan defile in stage 2 and the Hisarak pass in stage 3 only obstacles encountered; the former very difficult for wheeled artillery. Route open throughout the year.

Camping ground.—For a division at all intermediate stages.

Water.—For a division and more throughout from the Logar river.

Fuel.—Fuel is very scarce* once the Waghjan defile is passed in stage 2.

From the fact that the entire route lies in Supplies.— I the richly cultivated Logar valley, it may safely be assumed that at each stage the following could be collected during the day:—

Khasil—Sufficient for the horses of a cavalry brigade daily during March and April.

Bhusa—Between 1,000 and 2,000 maunds. Unground wheat and barley, between 1,000 and 2,000 maunds.

DEH-I-NAO

9 m. Camel road.

9 m.

| No. | · · · · | | المراجعة والمراجعة | |
|-----------------|---------|----------|------------------------|--|
| of stage | | | | |
| of stage and | | DETAILS. | | |
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| tance. | | | | |

1 and 2 the road strikes the base of a range of hills on the W. of the road; these hills run from E. to W. and extend to the Kabul-Ghazni road (Route 15). Several villages and hamlets passed on both sides of the river. At $4\frac{1}{2}$ miles the Tajik village of Muhammad Aga (200 houses) standing amidst highly cultivated fields; thereafter the Tajik villages of Kati Khel, Kala Wazir, Kala Mulla Bahadur and Kala Alam are successively passed, the last village at about 8 miles. At 9 miles camping ground of Deh-i-Nao, the village (150 houses in 1880, inhabitants Tajiks) is on the opposite (right) bank of the river.

Camping ground.—For a division, if necessary.

Water.—For a division or more from the Logar river.

Fuel.—In large quantities from the hills enclosing the Waghjan defile 3 miles from camp.

Fodder.— No details, but it is probable that at least Supplies.— 1,000 maunds of unground grain and a similar amount of bhusa could normally be collected from villages within 2 or 3 miles; good camel grazing except in winter, when it is scarce.

2 KALANGAR

9 m. Camel road.

18 m.

General direction S.W. Road continues along the left bank of the Logar river; at 2 miles Tajik village of Waghjan (500 houses) on left bank of river, and near by is Kala-i-Rahim Khan. From these 2 villages about 400 maunds

miles; defile is about $1\frac{1}{2}$ to 2 miles long and about $\frac{1}{2}$ mile wide, the road through which on both sides of the river is fit for laden camels but very difficult for wheeled artillery; on the S. of the defile is the small hamlet of Kala Shahghasi with a watch tower. After quitting the defile cultivation extends for about a mile on either side of the river to the end of the stage. At 9 miles Kalangar (1.000 houses) divided into several detached fortified hamlets, inhabitants Khwajas (Hazaras), Tajiks and Saiyids.

Camping ground.—For a division on a large open plain on the left bank of the river.

Water.—For a division or more from the Logar.

Fuel.—Considerable quantities from the Waghjan hills 4½ miles distant.

Fodder.—Khasil in March and April daily for the horses of a cavalry brigade; about 2,000 maunds bhusa normally available; good camel grazing except in winter, when it is scarce.

Supplies.—About 2,000 maunds unground wheat and barley could normally be procured in the vicinity.

There is a ford over the Logar river opposite Kalangar.

BARAKI-BARAK 9 m. Camel road.

27 m.

Road continues along the left bank, direction due S. It is possible to ford the river at Kalangar and then follow a camel road on the right bank. At 2 miles Upper Hisarak, an Ibrahim Khel village of 300 houses. At 4 miles Logar Hisarak (500 two-storied houses), main village on right bank with hamlets on both banks; inhabitants Tajiks, Kizilbashis and Popalzais. Road now crosses a range of hills by an easy pass, known as the Hisarak pass, fit for wheeled artillery. At

ROUTE No. 3-G—concld.

Water.—For a division or more from the Logar river.

Fuel.—Very scarce.

Fodder.—Khasil in March and April daily for the horses of a cavalry brigade; about 2,000 maunds bhusa from neighbouring villages; excellent camel grazing except in winter, when it is scarce.

Supplies.—About 2,000 maunds unground wheat and barley, at least from the surrounding villages.

4 KALA AMIR 7 m. 4f. Camel road. (6,440'). 34m. 4f.

Road continues along left bank of the Logar due W. for 2 miles, then N.W. to end of the stage. At $7\frac{1}{2}$ miles Kala Amir consisting of 3 forts surrounded by some cultivation.

 $Camping\ ground.$ Water. Fuel. Folder. Supplies. $Vide\ Route\ 4,\ stage\ 10.$

ROUTE NO. 4.

KHARLACHI TO KABUL.

Viâ the Mirzakai and Altimur passes, Gardez and the Ghazni-Kabul cart road.

161 miles.

15 stages.

Authority.—Stages 1 and 2, second Afghan war records; stages 2 to 11, native surveyor, 1902-05,

The above, i.e., stage 1 to 11, revised from information by native surveyor, 1911.

route into Afghanistan; it is constantly used, in preference to the Shutur Gardan route (No. 3) by Ghilzais and others, who say that the Shutur Gardan route was used in past times on account of the hostility of the tribes surrounding this, the Koshin route. The route is physically easier and said to be open all the year round. Lord Roberts, who reconnoitred as far as Ahmad Khel from Ali Khel in 1879, reported: "I believe this to be the easiest commercial and military route between Afghanistan and India. All information regarding the road describes it as fairly level and capable of being made a good road for wheeled carriages without difficulty. It is said that the late Amir Sher Ali brought his bullock guns into Kurram by this route." All later information tends to confirm this opinion, and since the subjection of the Jajis, Mangals, and Zadrans by Abdur Rahman this may be said to be the main route from Kurram to Kabul or Ghazni.

Road.—Camel road, 6' to 8' wide to Gardez, 59 miles, stage 6; stages 7 and 8 partly unmetalled cart, partly camel road; stages 9 and 10, unmetalled cart road; stage 11 camel road viâ the Tangi Wardak, mule road viâ the Zamburak pass; thence a motor road 24' wide with 15' light metalling, no soling, to Kabul. The last 4 stages of this route are identical with the first four stages of Route 15. The following obstacles hinder wheeled artillery between stages 1 and 11.

(i) Sarwai tangi in 2nd stage; completely blocked in spring by floods due to melting snow, and always after heavy rain.

(ii) Mirzakai khula in 3rd stage Owing to rocks and (iii) Altimur kotal in 8th stage boulders only remove-

(iv) Tangi Wardak in 11th stage) able after considerable blasting. In addition, as regards (c) western descent of the Altimur kotal too precipitous for wheeled artillery.

Route open all the year round with, the exception of the Sarwai tangi in spring already mentioned, when diversion viâ

Fuel.—At stages 1 to 7 abundant, except at stage 5, where it is scarce; from stage 7 onwards scarce throughout.

Fodder.—A little grass for horses in summer at stages 2 and 4; khasil daily during March and April at Gardez (stage 6) and at stages 9 and 10 in the fertile Logar valley; bhusa in small quantities could be collected from villages near by at practically every stage; in large quantities at Gardez (stage 6) and at stages 9 and 10, and in a lesser degree but to an appreciable extent, at stages from Shekhabad (stage 11) to Kabul.

Supplies.—For troops to any extent could not be counted on till Gardez (stage 6) is reached where all supplies for 1 division for about a week could be collected and where there are also large flocks of sheep and goats in the neighbouring villages; about 5,000 sheep and goats are also to be found in the Ahmad Khel villages (stage 2); a considerable amount of unground wheat and barley could be collected at stages 9 and 10 in the Logar valley and to a lesser degree at stages 2, 5, 8, 11 and thereafter at the remaining stages to Kabul.

| No. of stage and total distance. | | DETAILS. | | | | |
|----------------------------------|--------------------|----------|------|-------------|-------|-----|
| $\frac{1}{9 \text{ m.}}$ | LOI KILA (5,121'). | •• | 9 m. | Camel road. | 6' to | 8'. |

Leaving Kharlachi the road enters Karaia (Kurram) valley, following left bank of the river; direction S.W.; valley highly cultivated; river fordable everywhere except during floods. For the first 4 miles hills to the N. are 1 mile distant, to the S. wooded Mukhbil hills are about 1000× away; afterwards valley narrows. At 3 mile pass between posts of Pathan (garrison 1 company armed with Martinis) and Dand. At 2 miles, Chapri (100 houses). At 4 miles Landi (few

Fuel.—Abundant from the Mukhbil woods, within 2 miles of camp.

Fodder.—Bhusa from Chinarai and Hisarak 1 mile S. of river, for about 500 animals for 1 day; fair camel grazing.

Supplies.—No appreciable supplies for troops, or grain for horses.

2 AHMAD KHEL 15 m. (amel road 6' to 8'. (6,212').

24 m.

Roal continues along the left bank of the Karaia, direction nearly due W. At 1 mile, Hisarak (800 houses) S. of river, eastern hamlets known as Darmian Khel. From Hisarak Route 4-A runs S.W., up the Chakmani (Chamkani) glen to Matun. At 2 miles Pir Sarai, sarai 60 square. Here there is:—

Camping ground.—S. of village for 1 infantry brigade with proportion of divisional troops.

Water.—From the Karaia, for the above force.

Fuel.—Abundant supply from the Mukhbil woods.

Fodder.—Bhusa for 500 animals for 1 day available in this village; fair camel grazing.

Supplies.—Nil

From Pir sarai Route 4-B., runs N.W. up the Manga (Mangia) dara, rejoining this route at Ahmad Khel.

At $2\frac{1}{4}$ miles road enters dara 300 × long, 70× broad, hills steep on both sides; road follows bed of stream crossing it frequently ($2\frac{1}{2}$ of water in September 1906). At 3 miles Bagiar (customs house and 100 houses,) track runs N. from here, joining the Mangiar dara route. At 6 miles enter Sarwai tangi, most difficult part of route. Tangi continues off and on for about 7 miles; greater part of it about 70× to 100× broad, but in one or two places only 30× wide

At 12 miles Doda and at 13 miles Kala Jan Khan where tangiceases and succession of villages known collectively as Ahmad Khel commence. Opposite Kala Jan Khan there is:—

Camping ground.—For 1 infantry brigade with proportion of

divisional troops N. of the village.

Water.—For the above force at least from the Karaia stream.

 $\left. egin{array}{l} Fuel.-- \ Fodder.-- \ Supplies.-- \end{array}
ight\} ext{As for Ahmad Khel.}$

At 14 miles pass the tollbar, opposite which there is a ford. At 15 miles Ahmad Khel consisting of a group of villages at the junction of the Karaia and Mirzakai streams.

Camping ground.—For 1 infantry brigade with proportion of divisional troops on the right bank of the Mirzakai stream.

Water.—For the above force and more from the 2 streams.

Fuel.—In large quantities from the surrounding hills.

Fodder.—Grass for the horses of 1 cavalry regiment for 1 or 2 days; about 500 maunds bhusa could normally be collected in these villages; good camel grazing.

Supplies.—About 500 maunds unground wheat and barley normally procurable; some 5,000 sheep and goats belonging to the surrounding villages.

At Ahmad Khel, Route 3-D, coming from the N.W., connects the Shutur Gardan route (Route 3) with this route.

Also Route 4-B, the diversion to this last stage viâ the Mangiar nala, rejoins the present route.

8 m. Camel road 6' to 8',

DARAKHT

(6,891').

General direction S.W. Leaving the Ahmad Khel villages the road ascends the left bank of the Mirzakai, the hills closing in considerably, leaving the valley only about 300 × wide. At 5 miles the well-known Mirzakai khula (Surkai

Emerging from the *khula* the road ascends shaly *nala*' down which a stream flows. At 6 miles Mangal (50 houses) and at 8 miles Hazar Darakht, comprising hamlets of Nur Khan and Shahbazi on right and left banks respectively, in all 300 houses; also *khasadar* and toll post.

Camping ground.—For I infantry brigade with proportion of divisional troops on right bank of the stream adjoining Nur Khan. Alternative camp, $\frac{1}{2}$ mile further on, on left bank opposite point where Mirzakai is joined by nala from the S.; camping space about the same as on the right bank.

Water.—For the above force at least from the Mirzakai

stream adjoining camp.

Fuel.—In considerable quantities from the western slope of the khula.

Fodder.—Bhusa for about 300 animals for 1 day; fair came grazing, nil in winter.

Supplies.—Nil.

4 KAREZ .. 5 m. Camel road as before.

(8,492').

37 m.

General direction S.W. Track rises gradually into more open and level country with fortified hamlets on either side of the road. At $1\frac{1}{2}$ miles hills recede and road leaves the Mirzakai stream, which bears away N.W., to its source. At 2 miles, Mirzakai post (8,331'); post is oblong $70 \times$ by $40 \times$, loopholed walls 20' high and $4\frac{1}{2}$ ' thick at the base; towers at corners, gate 10' wide facing É; garrison, (1911) 2 officers and 100 men furnished from Gardez. There are no springs or wells near post and garri on is dependent for water on stream.

Leaving the post the ascent of the Mirzakai kotal is at once commenced; ascent which continues for about 1 mile is quite easy for laden camels. At 3 miles the kotal (8,492') is reached; pass is never blocked by snow, though deep snow was lying there

mosque; also from a tank $\frac{1}{4}$ mile E. of the mosque, 3' deep, $100 \times$ in circumference, fed by a stream 1' wide, 6" deep; overflow from tank used for cultivation; this tank would be useful for watering animals.

Fuel.—An appreciable amount could be brought in from the hills within 2 miles of camp.

Fodder.—Bhusa to a limited extent procurable; good camel grazing except in winter; it is probable there would be good grazing for horses on the plateau between April and October. Supplies.—Nil.

5 NESTI KOT .. 10 m. Camel road as before.

47 m.

Road continues S.W. and leads for 4 miles over an uninhabited plateau, after which several fortified hamlets, surrounded by a little cultivation, are passed. At 8 miles Gharak or Khan Khel (500 houses), chief village in Koshin, and inhabited by Ahmadzai Ghilzais. Here the Lajha nala road, Route 4-C, rejoins this route.

At 9 miles road crosses Spin or Sapeza Rud, banks 120 × wide; the actual stream (in April 1911) was 40' wide and 2' deep and is never dry. Height at this point 8,121'. A track leaves the left bank here and leads S.W. to Bala Deh, 5 miles distant. Two roads lead hence to Gardez, one on either bank of the Sapega Rud. The northern road (right bank) is the better and shorter road. At 10 miles Nesti Kot; group of some 10 villages (700 houses); inhabitants Ahmadzai Ghilzais. Usual pattern sarai.

Camping ground.—For 1 infantry brigade with proportion of divisional troops near the sarai; there are also several places where single battalions might encamp separately between the irrigation channels.

6 GARDEZ .. 12 m.—Camel road 10'. (7,511').

59 m.

Road leads S.W. throughout the stage over an open and flat country; soil pat; several fortified villages are passed en route. At 12 miles Gardez, capital and civil headquarters of Zurmat situated at the confluence of the Sapega and Altimur streams, which below Gardez is known as the Jilga river; contains about 3,000 houses, inhabitants mostly Tajiks with a few Ghilzais; large bazar; great quantities of wheat and barley produced here and taken to the Kabul market, also ghi and flocks of sheep, Gardez receiving in return fruit, tobacco and cotton cloth.

Two forts outside the town; older one occupied by khasadars, new fort by regular troops. This latter is situated on a mound commanding extensive view over surrounding flat country, but is itself commanded by hills 2 miles to the S. on left bank of the Sapega on which guns could easily be got up; it stands among small, fortified villages surrounded by gardens and fields, irrigated from canals. Walls of the new fort 800 yards in circumference 8' to 12' high and about 5' thick at the base; no bastions or ditches; 3 gates, but northern gate alone covered by traverse. Sapega Rud flows about 1 mile to the S. of this fort.

Garrison in 1911 was as follows:-

1 cavalry regiment armed with Martini carbines.

1 battery field artillery, of 6 muzzle loader guns, 3" to 4" bore but ill cared for and rusty.

2 battalions infantry armed with Martinis.

There are no regular barracks, but rifles and ammunition are kept in this fort, where I year's supplies of grain, etc., for the garrison are also stored.

Camping ground.—Several alternative camping grounds in vicinity of the fort; each would accommodate approximately 1

infantry brigade with proportion of divisional troops.

Water Abundant for a division or more from both streams.

Supplies.—For a division for probably at least one week. Gardez is a collecting centre for grain (barley and wheat) which is sent to the Kabul marts. Large flocks of sheep and goats in surrounding villages.

7 TANDAN .. 13 m.—Unmetalled cart road
20' to 30' over the
72 m.
plain, and about 6'
to 10' in the hills.

Leaving Gardez the road now leads N.E. over an open plain; this is the regular *kafila* road over the Altimur pass to Kabul, passable for all arms, but there are no cuttings, embankments nor bridges.

At 1 mile state sarai of usual pattern, viz., about 80 yards square with loopholed walls, 15' high and 4' to 5' thick; towers at each corner; a little bhusa and grain usually stored in these state sarais. At 2 miles Dehgan village of Shaikhan (300 houses). At 6 miles Spin Kala (8,431'), 70 houses. Here the Tirah Dara is crossed; riverbed 200 yards wide with steep banks 6' to 8' high in which flows a stream 8 yards to 12 yards broad and about 1½' deep. The plain is now left and the road leads up the nala. At 8½ miles Khak Hazara (25 houses) where Route 4-D joins this route from Karez (stage 4) and whence a track runs back S.E. to Nesti Kot 6 miles distant. The road now curves to the N.W.; at 9 miles the Tirah Dara opens out and is 300 yards to 400 yards broad. At 13 miles Tandan (8 houses).

Camping ground.—N. of village for 1 infantry brigade with proportion of divisional troops; site is commanded from the neighbouring hills.

Water.—Sufficient for the above force from springs.

Fuel.—An appreciable amount procurable from the deodar covered hills to the W. about 2 miles from camp.

Fodder.—Camel grazing scarce after the Tirah Dara is entered at 6 miles.

the head of the Tirah Dara and the commencement of the Altimur kotal (9,831') which consists of a defile 60' long by 50' broad, through which wind 2 tracks each about 6' to 8' broad, separated by rocks; these tracks would have to be cleared of boulders before being passable for wheeled artillery.

On emerging from the *kotal* the road leads down the Altimur nala which falls away somewhat steeply, the road 6' to 8' wide is cut out of the hill side on the eastern face and at $3\frac{1}{4}$ miles it is 200' above the torrent bed.

At 4 miles, the road zigzags steeply into the nala 180' below, and even camels make this descent with difficulty; cause of sudden descent is to avoid 3 groups of rocky projections which, however, could be removed after considerable blasting; guns would have to be man-handled down this zigzag, which has a gradient 1 in 5. In 1841 field guns descended to Tandan from the pass without much difficulty and a week later recrossed the Altimur pass. The guns were man-handled by Afghans and were much shaken, some seriouly damaged. At 8 miles Niazi village (40 houses) and at 13 miles Altimur (500 houses) whence an unmetalled cart road 10' proceeds due N., joining the through Route 3 just N. of Zargan Shahr (stage 3).

At Altimur there is:-

Camping ground.—For 1 infantry brigade with proportion of divisional troops on a site adjoining the village.

Water.—For the above force and more from the Altimur stream.

Fuel.—Scarce.

Fodder.—About 300 maunds bhusa normally available; fair camel grazing; nil in winter.

Supplies.—A few hundred maunds unground grain normally procurable.

9 PATKHAI ROG- 10m. 4f. Unmetalled cart road
HANAI. 12'.

Camping ground.—Probably for a division; 2 infantry brigades (8 battalions) of the Kabul-Kandahar Force encamped here in August 1880.

Water.—For a division and more from the Logar river.

Fuel.—Scarce.

Fodder.—Khasil for the horses of a cavalry brigade daily during March and April; about 2,000 maunds bhusa could be collected in the vicinity; excellent camel grazing except in winter, when it is scarce.

Supplies.—About 2,000 maunds unground grain normally available.

10 KALA AMIR 9m. 4f. Unmetalled cart road 10'.

105 m.

Road proceeds up the cultivated Logar valley direction N.W.; road is difficult for wheeled traffic owing to numerous water cuts and the softness of the soil. At 2 miles Tajik village of Baraki Rajan (1,000 houses) where an infantry battalion is said to be stationed. At $9\frac{1}{2}$ miles Kala Amir consisting of 3 forts, surrounded by some cultivation.

Camping ground.—For a division, though brigades and units would have to be scattered about.

On the 1st May 1880, the Ghazni Field Force, strength 7,249 fighting men with 7,273 followers, 1,942 horses and 6,581 transport animals, encamped at Kala Amir.

Water.—For a division at least from the Logar river.

Fuel.—Very scarce.

Fodder.—A little khasil in March and April; about 1,000 maunds bhusa good camel grazing except in winter, when it is scarce.

Supplies.—About 1,000 maunds unground wheat and barley normally available.

11 SHAIKHABAD .. 10 m. Camel road to Shaikh-

Route to Shaikhabad.

Road continues N.W. and immediately enters the Tangi Wardak defile, through which the Logar river flows, a camel track proceeding up both banks of the river; there is an easy ford just opposite Ursak river; projecting rocks and boulders, which are difficult to remove, would prevent wheeled artillery from using either track. The Tangi Wardak defile extends from Ursak to near Shaikhabad about 8 miles, and is an opening in the hills through which the Logar river finds its way; it is for the most part a cultivated valley I to $1\frac{1}{2}$ miles wide, but at narrowest point the hills, which are studded with fortified houses, command the road within a few hundred yards on both sides, rendering the forcing of the defile difficult, especially as nature of ground prevents employment of artillery other than mountain guns. In face of opposition a turning movement $vi\hat{a}$ the Zamburak pass would probably be advisable.

River 1' to 2' deep, fordable everywhere in dry season; at other seasons the river is only fordable at recognised fords, which themselves are temporarily impassable during spates which are of frequent occurrence in the spring; there are several footbridges. At 5 miles Doaba (50 houses) at junction of Shiniz and Wardak (Logar) rivers. Here a road follows Shiniz river S.W. to Saiyidabad, $3\frac{1}{2}$ miles distant. At 10 miles Shaikhabad on main Kabul-Kandahar road.

Shaikhabad.

Camping ground.—For a division.

Water.—For the above force, and more, from the Wardak river.

Fuel.—Scarce.

Fodder.— Unground grain and bhusa in considerable Supplies.— quantities could probably be collected from the villages in the fertile Shiniz and Wardak valleys: good camel

pass is only feasible by laden mules with some difficulty. Summit of pass (8,100'), 5 miles from Kala Amir; descent on western side much easier and at 2 miles from the kotal the road debouches into the Shiniz valley opposite Saiyidabad, which is 8 miles from Kala Amir. In April 1880, one horse and one field battery were brought over the Zamburak pass from the Ghazni side; the guns were lowered down the steep gradient and it was calculated that a battery could pass this obstacle in $2\frac{1}{2}$ hours.

Saiyidabad.

Camping-ground.—On left bank of Shiniz river for a division.

Water.—For the above force and more from the Shiniz river. Fuel.—Scarce.

Fodder.— Unground grain and bhusa in considerable Supplies.— quantities could be collected from the various villages in the Shiniz and Unkai valleys.

Saiyidabad was used both by Sir Donald Stewart marching to Kabul and Sir F. Roberts marching to Kandahar, in 1880, as halting places for their forces.

12 TOP 5m. 6f. Metalled road 24'. (7,400'). 120m.6f.

NOTE.—If marching from Saiyidabad length of stage is increased by 5 miles, the distance to Shaikhabad along the metalled road.

Saiyidabad-Shaikhabad.

Leaving Saiyidabad the road runs N.E., and leads up the Shiniz valley for the first 2 miles following the left bank of that river; the valley here is only about 1,000 × wide and is much cultivated. At 2 miles the road, continuing N.E., leaves this valley, as the river here curves more to the E. and

varies from 500 to 1,000 yards in width, and is enclosed by high hills on both sides; throughout the stage the road gradually ascends; there is but little cultivation till the Top villages are reached at 5\frac{3}{4} miles; here there is:—

Camping ground.—For a division.

Water.—For the above force from the Wardak river.

Fuel.—Scarce.

Fodder.—Fair camel grazing, nil in winter.

Supplies.—Nothing appreciable.

13 KALA DURANI 10m. 4f. Metalled road 24'. (7,100').

131m. 2f.

General direction N.E. The road continues to ascend till a distinct watershed is reached at $5\frac{1}{2}$ miles; from the ridge of the watershed signalling communication can be carried on with Sher Dahan kotal, 10 miles short of Ghazni. At 6 miles Bin-i-Badam and Anda (about 100 houses). The country throughout the stage is open and undulating and passable for all arms; there are high hills about 3 miles W. of the road and also 1 mile to the E. At $10\frac{1}{2}$ miles Kala Durani, a fortified hamlet, inhabitants Wardak Saiyids.

Camping ground.—For a division.

Water.—For the above force from a tributary of the Kabul river, $\frac{1}{4}$ mile E. of camp.

Fuel.—Scarce.

Fodder.— No details, but probably negligible; but there supplies.— is possibly fair camel grazing, except in winter.

14 ARGHANDEH $14\frac{3}{4}$ m. Metalled road 24' General direction N.E. 146 m.

At 1 mile the road runs through a narrow gorge in a low range of hills, affording fair position to an enemy blocking

bank. At the bridge the valley is nearly a mile wide, but it gradually contracts, the hills to the E. closing in somewhat rapidly on the road; at Pain Maidan, reached at $7\frac{1}{4}$ miles, the valley is only quarter mile broad. Here there is a:—

Camping ground.—For a division N. of the village.

Water.—For the above force from the Kabul river, from which several irrigation channels pass close to camp.

Fuel.—Scarce.

Folder.— \ No details, but a limited supply of bhusa and Supplies.— \ \) unground wheat and barley should normally be procurable, fair camel grazing, nil in winter.

From Pain Maidan two valleys branch off westward, being separated by a not very high range of hills; one is called Balla Maidan through which the Kabul flows. It contains numerous villages, and a path runs through it joining the Bamian road just beyond Rustam Khel. The other is called the Nirkh valley. It contains a good many villages, and is highly cultivated, but it leads nowhere in particular and ends in the hills.

Leaving Pain Maidan the country once more opens out to mile 10, when the hills again close in on the road, which now commences the gradual ascent of the Takht pass.

At $11\frac{1}{2}$ miles the Kotal-i-Takht (7,600'); country on both sides slopes very gradually from this *kotal*, and the descent is accordingly very gradual to Arghandeh (1,500 houses) reached at 14 miles.

Camping ground.—S.E. of Arghandeh-i-Bala for a division.

Water.—For a division from the Sadik ravine near camp.
Water can be also turned on into the several irrigation channels.

Fuel.—Scarce.

Fodder.— Unground wheat and barley and bhusa for trans-Supplies.— port animals, for probably two infantry brigades for 2 or 3 days, from the large villages of Arghandeh-i-Bala and Arghandeh-i-Pain. Arghandeh was a place of great importance during British occupation in 1879-80 as it com-

road. At 1 mile two roads branch off from this main road, one running nearly due W. to Jaokul, where it bifurcates leading—

(a) to Herat viâ Daulat Yar;

(b) to Mazar-i-Sharif viâ Bamian;

and the other running N.E. over the Surkh kotal to Charikar viá Istalif.

The road now turns nearly due E. and at $\frac{3}{4}$ mile passes through a short, broad defile between the spur of the Paghman range and the Korogh mountain; at 2 miles Kala Jafir Khan (50 houses); and at $3\frac{1}{4}$ miles Kala Ghulam Haider (100 houses); both Tajik villages.

At $4\frac{3}{4}$ miles cross Changar stream by wooden bridge, 6' long, 8' broad, practicable for wheeled artillery; just beyond the bridge, S. of the road, is the Tajik village of Murghir or Murgh Giran (100 houses). At $7\frac{1}{4}$ miles Kala-i-Kazi (200 houses), to the E. of which lies the Chardeh valley. Kala Kazi or Kala-i-Kazi was the farthest point reached by the Royal Horse Artillery and Cavalry in General Massy's engagement on the 11th December 1879.

Here there is—

Camping ground.—For a division, though the greater part is usually under cultivation.

Water.—Ample for a division from streams flowing into the Kabul river, and from numerous irrigation channels.

Fuel.—Very scarce.

Fodder.—About 1,000 maunds bhusa could normally be collected in the immediate vicinity.

Supplies.—About 1,000 maunds unground wheat and barley procurable in the immediate vicinity.

At 10 miles pass the Amir's garden house and grove known as the Mahtab bagh. Road now crosses the Chardeh plain covered with fields and gardens, seamed with irrigation canals, and

At 15 miles suburb Deh-i-Afghan adjoining city. For description, etc., of Kabul, vide Route 1.

ROUTE NO. 4-A.

HISARAK (PIR SARAI) TO MATUN.

38 miles.

5 stages.

Authority.—Reconnaissances under Sir F. Roberts, 1879; Kennedy and Lorimer, 1898; native information up to 1912.

Epitome.

General description.—A connecting route between the main through Routes 4 and 5; used by traders and reliefs for the Matun garrison marching from Kabul to the Khost valley; the latter half of the route also by the Matun garrison in their annual move to Gabar for the summer. Road: Camel road throughout. No obstacles are encountered. Route open throughout the year.

Camping grounds.—Probably for 1 infantry brigade with proportion of divisional troops at all intermediate stages, though there are no details regarding camps at stages 2 and 3; camping space at Matun for at least 2 or 3 infantry brigades with proportion of divisional troops.

Water.—Probably for at least 1 infantry brigade with proportion of divisional troops at all intermediate stages and for double that force at Matun.

Fuel.—No details, but the heights overlooking the Chakmani glen are known to be wooded.

Fodder.—Khasil to an appreciable extent at Matun in March

| No. of stage and total dis- tance. | | DETAILS. | | |
|------------------------------------|----------|----------|-------------|--|
| 1 | HUKAMZAI | 5 m. | Camel road. | |
| 5 m. | | | | |

General direction due S. Leaving Hisarak the Karaia stream is at once crossed at its junction with the Chakmani; current very rapid; rough, stony bottom; maximum depth water 3' (June 1879). At $\frac{3}{4}$ mile pass between the mud forts of Shalim and Saleh Khan, where the valley is about 700 × wide; path keeps along western base of hills. At 2 miles cross a spur near the Mangal village of Alim. Thence valley narrows to 200 yards and continues so till the end of the stage. Between 2nd and 4th miles pass Niazak and Baram Khel. At 5 miles Hukamzai.

Camping ground.—No details; according to the map the valley opens out, and there is probably camping space for 1 infantry brigade with proportion of divisional troops.

Water.—For the above force from the Chakmani stream.

Fuel.— No details; Hukamzai comprises a collection of Fodder.— Chakmani hamlets and it is, therefore, probable supplies.— that a few hundred maunds of unground wheat and barley and an equivalent amount of bhusa, could always be collected; good camel grazing.

2 GABAR .. 7m. 4f. Camel road.

12m. 4f.

General direction due S. Paths now lead on both banks of the Chakmani stream. Valley narrows once more to about 300× in width, at 3 miles reach boundary of Mangal country, though Gabar is a Mangal village. Throughout the stage the track winds through the high Gabar Mangal hills.

ROUTE No. 4-A-contd.

ZAMBAR 12 m. Camel road.

24m. 4f.

3

General direction S.E. Road proceeds along a tributary of the Kaitu as far as Matun, which stands at the confluence of the Kaith and Matun rivers. At 8 miles Balkhel. Between Gabar and Balkhel the village of Durmandai is also passed, hitherto the track has been closely confined by high hills on both sides, but the hills now begin to recede. At 9 miles Sabari (100 houses), surrounding country well cultivated up to the doors of the village, water being taken from 2 of these tributary streams between which the village lies. At 11 miles Arwani. At 12 miles Sabari village of Zambar.

Camping ground.—

Water.—

Fuel.—

Fodder.—

Supplies.—

No details, but Zambar stands on river of the same name, a tributary of the Kaitu, and it is reasonable to assume that the valley would be cultivated by its waters; there is water

sufficient for at least 1 infantry brigade with proportion of divisional troops. Good camel grazing.

YAKUBI .. 7m. 4f. Camel road.

32 m.

General direction S.E. Road proceeds

down the valley of the Zambar \mathbf{The} river. villages of Ragha and Tsaparra are passed during this stage. At 7½ miles the Lewan Khel village of Yakubi.

Camping ground.—For 1 infantry brigade with proportion of divisional troops, on right bank of Zambar river N. of village.

Water.—For the above force at least from the Zambar river.

Fodder -

No details; but there is good camel graz-

ROUTE No. 4-A—concld.

Matun is the winter capital of Khost and consists of a large group of villages on both banks of the Matun river (tributary of the Kaitu). There are 2 small square, mudwalled, loop-holed forts at Matun, one garrisoned by a regiment of cavalry and the other by a battalion of infantry and some artillery. In 1905 it was reported that 4 machine guns were mounted on the walls of the latter fort, but it is believed these have since been dismantled.

The garrison at Matun in 1912 was reported to be as follows:

- 3 mountain batteries (12 guns). 1 regiment cavalry.
 2 field batteries (12 guns). 3 battalions infantry.
- Also 600 khasadars. 4 machine guns.

In the summer the Governor and most of the garrison move to Gabar in the hills separating Khost from the upper waters of the Kurram river.

The following routes converge on, or radiate from, Matun:-

- (i) Route 5 running N.W. to Gardez.
- (ii) Route 5-A., from Alizai in the Kurram valley, viâ the Spin Tangi pass.
- (iii) Route 5-C., from Hazar Pir in the Kurram valley.

In addition 2 camel tracks lead from Matun as follows:—

- (a) One running due S. joining Routes in Waziristan, Route 10 to Miram Shah in stage 2 at the Ghorosti nala.
- (ó) The other running S.E, joining Routes in Waziristan, Route 13 to Spinwam at the Dunikot targi.

At Matun there is—

Camping ground.—For at least 2 or 3 infantry brigades with proportion of divisional troops.

Water .- For the above force, and more, from the Matun and Kaitu rivers.

Fuel.—Sufficient for a large force could be collected within a distance of 5 miles from the surrounding hills.

ROUTE NO. 4-B.

LOI KILA TO AHMAD KHEL.

Viâ the Mangiar Dara.

27 miles.

2 stages.

Authority.—2nd Afghan war records, 1879; native surveyor, 1911.

Epitome.

General description.—An important route, as it affords the only deviation possible to avoid the Sarwai tangi (in stage 2 of Route 4) when this defile is blocked by floods in spring; the last 9 miles of this route lies in the Karaia (Kurram) valley and is identical with that section of Route 3-D, from Ali Khel. Road: Camel road throughout. The following obstacles are encountered:—

(i) The Sapri pass (9,079') in the first stage.

(ii) The Uchmanki pass (7,361') in the second stage.

Both passes are only feasible for lightly laden camels. The Sapri pass from its altitude would certainly be blocked by snow from December to the end of February, and the Uchmanki pass temporarily after heavy falls of snow. With these exceptions the route is open at all other times of the year.

Camping ground.—For a division at Sapri, the intermediate

stage.

Water.—For 1 infantry brigade with proportion of divisional troops at Sapri.

Fuel.—Wood abundant at Sapri.

Fodder.—Good supply of grass from the plateau at Sapri in summer; good camel grazing, except in winter, when there is nil.

Supplies.—Nothing appreciable.

the main route and branches off N.W. up the Mangiar Dara valley, here 200× broad. The track, which continually crosses the Mangiar stream, 6' to 8' broad, and about 18" deep (April 1911), is completely commanded by steep wooded heights. At 10 miles the Mangal village of Tarosti (50 houses). At 11 miles the ascent of the Sapri kot il is commenced, track zigzagging up the steep side of the hill for about a mile to the crest of the kotil (9,079'). This zigzag ascent is difficult and trying for baggage animals, but a kafila of 150 camels crossed the pass on the 1st April 1911, when 2½ of snow was lying for about 1,200 yards on either side of the crest. The track down the further (N.W.) slopes of the pass is 6' to 8' broad cut out of the sandstone hillside, gradient 1 in 7; from the foot of the pass the track heads due W. for the Mangal village of Sapri (30 houses) reached at 12 miles and situated at the southern and most elevated extremity of Sapri plateau 1½ miles long by 1 mile broad.

Camping ground.—For a division on the plateau, $1\frac{1}{2}$ miles by 1 mile, N. of village,

Water.—From the Sapri stream, tributary of the Karaia, for 1 infantry brigade with proportion of divisional troops even in dry weather.

Fuel.—Wood plentiful from the surrounding wooded hills within 1 or 2 miles of camp.

Fodder.—Good supply of grass in summer from the plateau and its slopes; good camel grazing except in winter, when there is nil.

Supplies.—Nothing appreciable.

2 AHMAD KHEL .. 13 m. Camel road. (6,212').

At 1 mile leave the Sapri plateau and pass down a

ROUTE No. 4-B—concld.

terraced fields. At 3½ miles the track enters the Karaia valley down which it runs S.W. to Ahmad Khel. The Karaia stream in April 1911 was $20 \times$ to $30 \times$ broad, 2' to 3' deep with firm bottom; valley at this point varies from 100 × to 300 × in breadth; hills to the W. rise in easy, open slopes about 200' high, those to the E. are steep, deodar-covered heights from 300' to 600' high; track on right bank of the stream. At 4 miles the Jaji (Hasan Khel) village of Kharmana (6,791', 300 two-storied houses). At 5 miles Hasan Khel village of Sikandar Khel (200 two-storied houses). Immediately below Sikandar Khel the river has to be forded and $\frac{3}{4}$ mile further on it is recrossed and the right bank regained. The necessity for these crossings is not apparent, but travellers on foot avoid these fords by a deviation through the hills, which, however, is too steep for baggage animals.. At 6 miles Upper Hasan Khel (120 two-storied houses, 6,641'). Up to here field artillery could be bought down the bed of the river from Ali Khel, but onwards to Ahmad Khel field guns could not travel owing to stones and boulders. At 8 miles Lower Hasan Khel (3 groups of doublestoried houses about 1,000 in all; 6,231') shut in by hills on all sides. Thence track runs over low, undulating hills to the foot of the Uchmanki pass reached at 12 miles. Kotal (7,361') reached after an easy climb of 1 mile, but was covered with 1½ feet of snow early in April 1911. Descent of pass is steep. gradient averaging 1 in 5 throughout, but it is quite feasible for laden camels. At 13 miles Ahmad Khel.

 $egin{array}{c} Camping\ ground.-- \ Water.-- \ Fuel.-- \ Fodder.-- \ Supplies.-- \end{array}
ight. egin{array}{c} Vide\ ext{Route}\ 2. \end{array}$

ROUTE NO. 4-C.

LAJHI TO NESTI KOT

Road.—Stages 1 and 2, mule track; 3rd stage camel road. The kotal met with in the second stage is the only obstacle encountered, which, however, is passable by laden mules.

Route open throughout the year.

Camping grounds.—For 2 or 3 battalions at both intermediate stages.

Water.—Sufficient for the above troops at both intermediate stages.

Fuel.—In large quantities for the first half of the route.

Fodder.—No details, but a little bhusa should be procurable at Shesnak, Stage 2.

Supplies.—No details; probably nothing appreciable except at Shesnak, where about 100 maunds unground grain should be normally procurable.

| No. of stage and total dis- tance. | | DETAILS. | | |
|------------------------------------|---------|-----------|------------|--|
| 1 | TASHNAK | 12 m. | Mule road. | |
| 19 m | | | | |

If a force is moving by this route into Koshin, camp should be formed at Lajhi, mile 10, stage 2, Route 2. Lajhi is at the junction of the stream of that name with the Karaia.

Leaving Lajhi the track proceeds S.W. up the Lajhi nala which winds through high and, in places, almost precipitous hills; at 6 miles Pathak (30 houses). At 12 miles Tashnak (100 houses).

Camping ground.—For 2 or 3 battalions only.

Water.—For the above force and more from the Lajhi and other small feeder streams.

Fuel.—In large quantities as some of the hills are densely

wooded.

ROUTE No. 4-C—concld.

descent is less steep but longer. From the foot of the pass the road heads due W. for Shesnak. At 10 miles it enters a small valley, down which it runs with an easy gradient. At 12 miles Shesnak (about 250 houses, comprising groups of 4 or 5 small villages).

Camping ground.—For 2 or 3 battalions only.

Water.—For the above force only from small stream adjoining camp.

Fuel.—Nothing nearer than the eastern slopes of kotal referred to, 5 miles distant, from which wood in large quantities is obtainable.

Fodder.—No details, but it is probable that about 100 maunds bhusa could be collected from the villages mentioned; good camel grazing.

Supplies.—No details; probably 100 maunds unground grain procurable.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide, Route 4, Stage 5.

ROUTE NO. 4-D.

KAREZ TO TANDAN.

stages as the track runs straight across instead of the long diversion viâ Gardez taken by Route 4. This route also forms part of the direct summer kafila route between Mirzakai and Altimur viâ the Urus-i-Maidan pass, hitherto (1912) not explored but well known to exist; the present route is much used by kuchis when the Urus-i-Maidan is closed by snow.

Road.—Camel road throughout. There are no obstacles and the route is open throughout the year.

Camping grounds.—No details at Zandi Khel, the intermediate stage.

Water.—For 2 or 3 battalions at Zandi Khel.

 $\left. egin{aligned} Fuel.-- \ Fodder.-- \ Supplies.-- \end{aligned}
ight.
i$

| No. of stage and | DETAILS. | | |
|----------------------|----------|-----|--|
| total dis- tance. | DHIIII. | | |
| | 0 46 | ~ 1 | |

1 ZANDI KHEL . . 6m. 4f. Camel road. (8,631').

Road leads S.W. across unirrigated fields. At 1½ miles it is possible to cross a spur from the Machalgu hills, which would save about 1 mile, but the ascent and descent of this spur is not feasible for camels, the camel track making a detour along the base of the hills. At 31 miles Mamuzai (75 two-storied houses); at 4 miles Machalg 1 (100 two-storied houses) where the road crosses the Machalgu stream, 25× wide about 1'deep, water muddy; there is a small rocky hill 150 feet high on right bank of the stream with a tower on top, which would make a good signalling station. The road now crosses a stony, level plain, direction S.W. to Zandi Khel (35 houses) situated on the 1 1 1 1 170/ - harre the mala of the game name, mala had

ROUTE No. 4-D—concld.

 $\left. egin{array}{ll} Fuel.-- \\ Fodder.-- \\ Supplies.-- \end{array}
ight\}$ No details; probably negligeable.

Note (i).—Opposite Zandi Khel on the left bank of the nala

is the tomb of Mian Umar, with 3 houses adjoining it.

Note (ii).—It is reported that a track leads N.W. up the nala to the village of Zarin Khel 2 miles distant, thence over the Urus-i-Maidan Pass, a plateau or marg on the mountain top, viâ Shawaz to Altimur. This road is reported to be the usual summer kafila camel route between Mirzakai and Altimur, being appreciably shorter than the corresponding stages described in Route 4. The Urus-i-Maidan Pass is reported to be closed throughout the winter and was known to be so on the 15th April. 1911.

2 TANDAN 12m. 4f. Camel road. (7,658').

19 m.

General direction nearly due W. Leaving

Zandi Khel the road continues across a stony, level plain; at 3 miles a path is crossed leading S. to Nesti Kot, 3 miles distant; between the 4th and 5th miles the road winds through a succession of low hills. At 6 miles cross nala 150× broad with banks of an average slope of 1 in 15, and stream of good water 5' to 6' broad and about 1' deep, which is dry in summer. At 8 miles, Khak Hazara (25 houses) where Route 4 is joined, and which is followed to Tandan, which is stage 7 of that route.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 4, stage 7.

ROUTE NO. 4-E. GARDEZ TO GHAZNI.

ROUTE No. 4-E-contd.

Road.—Unmetalled cart road 10', except at the commencement of stage 3 to Lalu Kila when the road 6' to 8' broad winds for about a mile through the Band-i-Daulat Khan range; this section of 1 mile could probably be rapidly converted into a cart road. With this exception no obstacle of any kind is encountered, the road generally running over an open plain. Route open throughout the year.

Camping grounds.—For a division at stages 1 and 3, and for 1 infantry brigade with proportion of divisional troops at the

remaining intermediate stages.

Water.—For at least 1 infantry brigade with proportion of divisional troops at all intermediate stages.

Fuel.—No trees, but stunted scrub universal.

Fodder.—No grass for horses; khasil daily in March and April at stages 1 and 4 for the horses at least of 1 cavalry regiment; also a few hundred maunds bhusa at both these stages. Camel grazing for 200 to 300 camels along the route.

Supplies.—For troops could not be reckoned on, except at Hisak and Rahmak, stages 1 and 4, where a few hundred maunds of unground wheat and barley would normally be procurable; there are 2,000 to 3,000 sheep usually in the Hisak villages. (Stage 1.)

| No. of stage and total distance. | • | | DETAIL | s. | |
|----------------------------------|--------------------|----|--------|-----------------|------|
| 1 11 m. | HISAK (7,021'). | •• | 11 m. | Unmetalled cart | road |

Leaving Gardez the road proceeds across a level plain covered with small scattered bushes affording good camel grazing. Once clear of the town the Band-i-Daulat Khan hills are visible to the W. At 5 miles the road turns somewhat sharply

ROUTE No. 4-E-contd.

Water.—For about 1 infantry brigade with proportion of divisional troops in the dry season from the several karezes

Fuel.—No wood, but scrub could probably be collected afford-

ing sufficient fuel for one infantry brigade for a night.

Folder.—No grass for horses; khasil for 500 horses daily in March and April; 500 maunds of bhusa could certainly be collected from the various hamlets; camel grazing for about 1,000 camels throughout the stage.

Supplies.—About 500 maunds unground wheat and barley should always be available; there are also from 2,000 to 3,000 sheep in the Hisak villages.

2 KHWAR 8 m. Unmetalled cart road MAKAWA. 10'.

19 m. (7,161').

Road now leads due W. across a leve!, uncultivated plain suitable for movements of all arms. At $5\frac{1}{2}$ miles pass a ziarat named Diwan Khel Baba (7,162'); 2 tall poplar trees here form a landmark for miles round. At 8 miles cross the Khwar Makawa nala, 20^{\times} to 30^{\times} broad, barely perceptible banks; stream in April 1911, 13^{\times} broad, $1\frac{1}{2}$ ' to 2' deep. On the right bank of the stream immediately S. of the road is a water mill surrounded by willow trees with a watch tower commanding a view to Gardez to the N.E. and over the Zirmana Ilaqua plain to the S. There are only a few small hamlets at Khwar Makawa.

Camping ground.—For a division if necessary on the right bank of the Khawar Makawa, on the open plain. The camping-ground is bounded on the N. by low sandstone hills 250× N. of the road; on the E. by the nala and on the W. by the Band-i-Daulat Khan range 1,000× distant. Hills referred to can easily be piquetted.

Water.—For at least one infantry brigade with proportion of divisional troops even in dry weather from the Khwar Makawa.

Fuel -No details

Bandi-i-Daulat Khan range, 1 mile in length, where road is only a camel track, 6' to 8', but easily convertible to a cart road.

General direction N.W. At 1 mile reach the Band-i-Daulat Khan hills, through which the road winds its way, emerging on to an open plain beyond. Hills here about 200' to 300' above the road. At 1½ miles when leaving the hills a group of about a dozen houses one mile N. of the road and a round fort about 500×S. of the road. A level plain is now traversed, bounded by low sandstone hills rising sharply from the plain 1½ miles to the N. and on the S.W. by the Bandi-i-Daulat Khan range. At 4½ miles a range of sandstone hills 500' high commence, flanking the road on the S. and continuing alongside it to the 9th mile when this range recedes to the S. At $7\frac{1}{2}$ miles Kandi Khel (a dozen houses) and at $8\frac{1}{2}$ miles Kala Daulat Khan same size, both N. of the road. From mile 9 to mile $11\frac{1}{2}$ (Lalu Kila) valley is about 2 miles broad. Lalu Kila (60 houses within walled mud enclosure)

Camping ground.—For a division if necessary on the open

plain.

Water.—For 1 infantry brigade with proportion of divisional troops from a spring N. of the village.

 $\left. egin{array}{ll} Fuel. — \\ Fodder. — \\ Supplies. — \end{array}
ight.
ight.$

4 RAHMAK .. $6\frac{1}{2}$ m. Unmetalled cart road (7,091'). 10.'

37 m. General direction W. Road continues across an open flat plain, irrigated in places from 2 hill streams, coming from the N. At 4 miles a water-course 6' wide $1\frac{1}{2}$ ' deep is crossed, on which 4 miles to the N. of the road the Tajik village of Robat (250 houses) stands amongst walled gardens. At $6\frac{1}{2}$ miles Tajik village of Rahmak (500 houses) (7.041') in a fortified enclosure surrounded by fruit gradens:

ROUTE No. 4-E-concld.

Fuel.—No details.

Fodder.—Khasil for about 500 horses daily throughout March and April; about 300 maunds bhusa could normally be collected in the 2 villages.

Supplies.—Probably 300 maunds unground grain could be collected.

5 GHAZNI .. 10 m. Unmetalled cart road (7,279') 10'.

Road proceeds W. across a stony uncultivated plain varying from $\frac{1}{2}$ a mile to 2 miles broad, bounded N. and S. by low sandstone hills about 200' high. At $1\frac{1}{2}$ miles an unmetalled cart road 10' from Tasang joins this route. At $7\frac{3}{4}$ miles, path proceeds N.W. to Roza village on the Ghazni-Kabul Road, where Mahmud of Ghazni's tomb is. At $9\frac{1}{2}$ miles cross small water-course, with small perennial stream which offers no obstruction. Suburbs of Ghazni are now entered, the road leading past houses and gardens.

At 10 miles Ghazni. For description, camping ground, water, etc., see Route 6, stage 10.

ROUTE NO. 4-F.

GARDEZ TO GHAZNI.

60 miles.

5 stages.

Authority.—Native surveyors, 1902 and 1905, 1907 and 1908.

Epitome.

General description.—An alternative route to Route 4-E. From Band in the third stage to Ghazni this route is identical with the main Route 6 from the Tochi valley to Ghazni.

Camping grounds.—For a division at stage 1, no details as regards stage 2, and for 1 infantry brigade with proportion of divisional troops at stages 3 and 4.

Water.—For a division at stages 1 and 2, and for at least 1 infantry brigade with the proportion of divisional troops at the remaining 2 stages.

Fuel.—No details; probably scarce throughout.

Fodder.—Bhusa to an appreciable extent at stage 3; good camel grazing throughout.

Supplies.—For troops to any extent cannot be reckoned on except at Ghazni, for details of which vide Route 6, stage 10.

| No. of stage and total dis- tance. | | | DETAILS. | | | |
|------------------------------------|------|----|----------|-----------------|------|------|
| 1 15 m. | CAMP | •• | 15 m. | Unmetalled 12'. | cart | road |

Road follows the valley of the Jilga stream, direction S.W. Camp at 15 miles.

Camping ground.—No details, but it is probable that a division could encamp in the valley in this vicinity.

Water.—Probably for a division from the Jilga river.

Fuel.—No details; probably nothing appreciable.

Fodder.—No details; probably nothing appreciable.

Supplies.—No details; probably nil, there being apparently no village in the vicinity.

2 KALALGU .. 14 m. Unmetalled cart road 12'.

29 m. The road continues

ROUTE No. 4-F—concld.

3 KALA NIAZ .. 12 m. Unmetalled cart road 12'.

Road continues S.W.

down the Jilga valley and for the first 2 miles it is much intersected by nalas; as far as the Mursal hill at the 8th mile it is commanded on the N. by low hills, under features of the Machalgu range, but to the S. it is quite open. At 8 miles, Band (40 houses), where the road leaves the Jilga valley and turns N.W. and leads over the Shilghar plain. Here the main Route 6 is joined, the 2 routes hereafter being identical to Ghazni.

For description of rest of stage, etc., to Kala Niaz, vide Route 6, Stage 8.

4 ABDUR RAHMAN 10 m. Unmetalled cart road 12'.

51 m. For description of stage, etc., vide Route 6, Stage 9,

5 GHAZNI .. 9 m. Unmetalled cart road (7,279'). 12'.

60 m. For description of stage, and of Ghazni, vide Route 6, Stage 10.

ROUTE NO. 4-G.

ALTIMUR TO ZARGAN SHAHR.

 $21\frac{1}{2}$ miles.

2 stages.

Authority.—Native surveyor, 1911.

Epitome.

General description.—A connecting route between the 2 main Routes 3 and 4. For the first $12\frac{1}{2}$ miles the road forms part

ROUTE No. 4-G-contd.

Road.—From Altimur to mile 12½, unmetalled cart road 20' to 30'; thereafter to Zarghan Shahr unmetalled cart road 8' to 10'. The Kotal-i-Ashabi is the only obstacle encountered, but it presents no difficulty. Route open throughout the year.

Camping grounds.—No details at Patkhai Shahana, the inter-

mediate stage.

Water.—At least for 1 infantry brigade with proportion of divisional troops at Patkhai Shahana.

Fuel.—No details.

Fodder.—About 500 maunds bhusa normally available at the intermediate stage; good camel grazing along the route except in winter, when there is nil.

Supplies.—About 500 maunds unground wheat and barley normally available at Patkhai Shahana, the intermediate stage.

| No. of stage and total dis- tance. | | DETAILS. |
|------------------------------------|-----------|-------------------------|
| 1 | PATKHAI | 9m. 4f. Unmetalled cart |
| | SHAHANA* | road 20' to 30'. |
| 9m. 4f. | (7,140'). | |

General direction due N. At 1 mile Tagher (20 houses) about $\frac{1}{2}$ a mile E. of the road. At $4\frac{1}{2}$ miles pass a tower guarding a small tank filled by snow water. At $5\frac{1}{2}$ miles road crosses a small ridge through which a cutting was being made in April 1911. For the last 4 miles of the stage the road crosses a level, uncultivated plain. At $9\frac{1}{2}$ miles Pathkai Shahana (500 houses), whence a road suitable for carts runs S.W. to Patkhai Roghanai (Route 4, stage 9), 5 miles distant.

Camping ground.—No details.

ROUTE No. 4-G—concld.

Folder— About 500 maunds unground wheat and barley, Supplies.— and an equivalent amount of bhusa normally available. Good camel grazing except in winter, when there is nil.

ZARGAN SHAHR..12 m. Unmetalled cart road

veering gradually N.E., in latter half of stage. At 1 mile a camel track branches off from this route and leads due W. to Hisarak on the right bank of the Logar river, 3 miles distant. At $2\frac{1}{2}$ miles Daulat Khel (10 houses); at 3 miles the present road begins to veer N.E. and leaves the main Kabul-Gardez route, which though unsurveyed is known to continue roughly due N., and to join Route 3 near Zargan Shahr, stage 7 of that route. The road now crosses a stony, uncultivated plateau intersected by 2 or 3 dry nalas forming no obstacle. At $10\frac{1}{4}$ miles commence ascent of the Kotal-i-Ashabi, gradient 1 in 15, summit reached at 11 miles, no difficulty; thence across level plain to Zargan Shahr reached at 12 miles.

 $\left. egin{array}{ll} Camping \ ground. — \\ Water. — \\ Fuel. — \\ Fodder. — \\ Supplies. — \end{array}
ight.
ight.
ight. Vide \ {
m Route 3, stage 7.}$

ROUTE No. 4-H.

PATKHAI ROGHANAI TO GHAZNI. Viâ Kharwar.

45 miles.

4 stages.

Authority.—Native surveyor, 1905.

The Kharparchak pass in stage 2 and the Zanakhan pass in stage 3 are the only obstacles encountered; the former already described, the latter is passable by Indian camels, but requires improvement before being fit for wheeled artillery. Route open throughout the year.

Water.—Plentiful for 1 infantry brigade with proportion of divisional troops at all intermediate stages.

Fuel.—No details.

Fodder.— Details scanty, but it is probable that about Supplies.— 500 maunds unground grain and an equivalent amount of bhusa would normally be procurable at stage 1; it is also probable that there is good camel grazing throughout, which, however, would be very scarce in winter.

| No. of stage and total dis- tance. | DETAILS. | | | |
|------------------------------------|----------|----|------|-------------|
| 9 m. | KHAORO | •• | 9 m. | Camel road. |

Leaving Patkhai Roghanai the road follows the main through Route 4 towards Altimur village (stage 8) for $2\frac{1}{2}$ miles, direction S.W. At 1 mile Charkh river is forded, river normally $15\times$ wide, 2' to $2\frac{1}{2}$ ' deep, but unfordable when in flood. At $2\frac{1}{2}$ miles road leaves Route 4 and runs S.E., across a pat plain to Khaoro reached at 9 miles.

Alternative road.—10 miles, camel road. Follow Route 4 for 2 miles W. towards Kala Amir (stage 10) to the Tajik village of Baraki Rajani (1,000 houses). Road then turns S.E. up the broad, open valley of the Siah Ab or Charkh river; valley is well cultivated from karazes; at 5 miles village of Kala Ghulam Sadik and at 6 miles Shamazar, both on the right of the road.

Fuel.—No details.

Fodder.—No details, but it is probable that 500 maunds bhusa could ordinarily be collected in the valley within 5 miles of camp.

Supplies.—No details; it is probable that about 500 maunds unground grain would normally be available in this vicinity.

GADAI KHEL .. 9 m. Camel road except (7,980')over the Kharparchak 18 m. pass,* which lightly

laden kuchi camels can only just negotiate.

Road continues S.W. At 3 miles a group of hamlets is passed known as Pingram or Kala Nao on the right bank of the Charkh river, and as Naushahr on its left bank. River is here forded; no details regarding ford, but no difficulty is anticipated. At 6 miles the Kharparchak pass (8,530') is crossed. This pass is reported to be impracticable for Indian camels, and only feasible for lightly laden kuchi camels and mules. At 7 miles Aman Khel and at 9 miles Gadai Khel.

Comping ground.—For 1 infantry brigade with proportion of divisional troops.

Water .- For the above force at least from the Charkh river.

Fuel.- Fodder.- $\left.\begin{array}{c}
\end{array}\right\}$ No details.

KHOJAL KHEL .. 14 m. 3 Camel road.

32 m.

Road continues S.W. At 1 mile a track running N.F. leaves this route and joins Ro te 4 just N. at Altimur village (stage 8). At 2½ miles Karez Gul Muhammad. Here the road gradually veers due W. and enters the Kharwar district, through the north-eastern limits of which it runs to the end of the stage. Kharwar is an elevated plateau.

ROUTE No. 4-H—concld.

Zanakhan pass (8,750'), ascent steep, descent easy; pass is fit for Indian camels, but would require improvement on its eastern face before being practicable for wheeled artillery. At 11 miles Rashid Kafir; at 13 miles Herat Khel and at 14 miles Khojal Khel on the right bank of a tributary of the Ghazni River.

Camping ground.—For 1 infantry brigade with proportion of divisional troops on the N. bank of the stream.

Water.—For the above force from the stream.

Fuel.— Fodder.— Supplies.— Supplies.

4 GHAZNI .. 13 m. Camel road. (7,279').

45 m.

General direction S.W. along an open valley on the right bank of the stream. At 4 miles Purdil Khan where road crosses to the left bank; no details. At 7 miles Miandad, and at 9 miles Zakawal ½ mile S. of the stream. At about 10 miles the main Ghazni-Kabul road (Route 15) is joined and followed to Ghazni.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 6, stage 10.

ROUTE No. 5.

THAL TO GARDEZ.

Viâ Matun and the Khiddi Ghakhai pass.
125 miles.
11 stages.

Authority.—Stage 1, Ross, 1909; thence to Shabak pass

is joined. Gardez being connected with Ghazni by Routes 4-E and 4-F, the present route thus forms a through connection from the railhead at Thal with both Kabul and Ghazni, and viâ Ghazni with Kandahar. The Ghazni mails and the relief of the Afghan troops are said to follow this route. At Thal this route connects with Route 28, Routes South of the Kabul River.

Road.—First stage cart road suitable for 2 streams of carts, but first 3 miles only metalled; thence a camel road easily convertible for wheeled artillery throughout, with the exception of the ascent of the Khiddi (Khandi) Ghakhai pass (10,150') on its S.W. face, in the 10th stage, which in its present condition is unfit for camels, but up which a road with easier gradients could easily be made as the soil is soft. The following obstacles are encountered:—

- (i) Kurram river in second stage which has to be forded; liable to be temporarily impassable owing to spates.
- (ii) Shabak pass (4,126') in third stage; no difficulty.
- (iii) Khiddi (Khandi) Ghakhai pass (10,150') in 10th stage; ascent on S.W. face at present unfit for camels; owing to its altitude this pass would be blocked by snow for at least 2 months in the winter.

With these exceptions the route is open throughout the year. Camping grounds.—For a division at stages 2 and 5 and at Gardez; for at least 1 infantry brigade with proportion of divisional troops at all other stages.

Water.—For at least 1 infantry brigade with proportion of divisional troops at all stages.

Fuel.—At Matun, 4th stage, and thenceforward at all stages in abundance, as the route traverses wooded hills throughout this section.

Fodder.—Details very scanty; but bhusa and khasil at Matun and Gardez as described. Fair to good camel grazing throughout.

Supplies.—Nothing appreciable except at Matun and Gardez.

No.

General direction N.W. along left bank of the Kurram river. Road drops down from Thal Fort and crosses the bed of the Sangroba nala, here about 250× wide. After heavy rain in the Zaimukht hills it is impassable for 3 or 4 hours.

At 1 mile Thal Border Military Police post, Thal village and large survi to S. of road. Cross deep nula by masonry bridge. At 1 mile Yusuf Khel village, just beyond which two nalas are crossed. At 1½ miles old camping ground on high ground, overlooking the bed of the river but commanded by hills to the N. Space for 3 regiments. At $2\frac{1}{2}$ miles cross a nala, on banks of which are abutments of an incomplete bridge, one abutment being partially demolished. At $2\frac{1}{2}$ miles pass hamlet of Chaode Kalai to S. of the road. From 3 miles the road rises and runs along the edge of a cliff to 7 miles, and up to 3 miles is metalled 10' wide. At 6 miles pass Tutkas village. At 63 miles cross a bridged nala and the Administrative Frontier. At $7\frac{1}{2}$ mile cross a *nala* whence the Khoidad Khel path to Dilragha ascends. In 9th mile pass the Chapri militia post and the two hamlets of Chapri. Here there was a fortified post and sarai during the 2nd Afghan war, and there is-

Camping ground.—For 1 infantry brigade with proportion of divisional troops on 2 sites N. and N.W. of the old post.

Water.—For the above force at least.

Fuel.—Scarce.

Fodder.—Fair camel grazing, on the right bank of the Kurram and grass after rain.

Supplies.—From Thal.

At 123 miles pass village of Char Khel and ruin of old militia post on conical hill.

At 13 miles Manduri, Watizai village. There is a Military Works Department rest-house, accommodation for 2 officers, and 2 subordinates, 2 godowns, 2 stables and store in a small walled enclosure between the 2 villages of Manduri and close to the camping ground. There is also a railway rest-house and

Water.—For the above force from an irrigation cut, on the roadside, and for a division or more from the Kurram river, I mile distant.

Fuel.—No details.

Fodder.— About 1,000 maunds unground grain and an Supplies.— Supplies.— Supplies of bhus would normally be procurable. Good camel grazing.

2 SKARDAND .. 6 m. Camel road. Easily made fit for wheeled artillery.

At ½ mile the present route leaves the Kurram valley by making a right angle turn to the S.W. and crossing the Kurram river heads direct for Skardand. The Kurram is forded at this point; hard, stony bottom and no difficulties except when river is in flood, when ford may be temporarily impassable. On reaching the right bank road continues S.W. and at 2 miles leads over a small kotal on to the Shabak plain; the road now follows the course of the Shabak nala, but keeps on the plain; the country throughout the stage is open and there is no cultivation. At 6 miles Skardand is reached.

Camping ground.—Unlimited camping space probably sufficient for a division.

Water.—Only a limited supply, but water could be obtained anywhere on the plain by sinking wells.

Fuel.—Scarce.

Fodder.— No details, but there should be at least fair camel grazing.

3 LANDHA .. 14 m. Camel road easily made fit for wheeled artillery.

The Ol 1 - 1 + 4 - Chabala maga locally knows on Pota:

The ascent of the pass from the E. though steep in places is practicable for camels and could easily be made fit for wheeled artillery. The descent on the western face is also steep in places, but if anything is easier than the eastern face. There is an Afghan khasadar post about a mile from the summit on the Afghan (W.) side of the pass. From the foot of the kotal the road passes through a small open valley. At 11 miles Ghilzai where the Landha stream is also met; from here a mule track running due N. joins Route 5-A at the Spin Tangi pass 7 miles distant. At 14 miles Landha on the left bank of the Kaitu (Katur) or Shamil river, which is met here; river has a sandy bed with low banks.

Camping ground.—For 1 infantry brigade with proportion

of divisional troops at least.

Water.—For the above force from the Kaitu.

Fuel.—No details.

Fodder.—Fair camel grazing; no other details.

Supplies.—No details; probably nothing appreciable.

4 MATUN .. 12 m. Camel road.

(3,892')
45 m.

Road now runs along the left bank of the Kaitu, direction N.W., to Habib Khel reached at 5 miles. The valley up to this point is about I mile wide flanked by comparatively high hills.

At Habib Khel the Kaitu valley is left, the road continuing N.W. to Arun Khel (8 miles), then S.W. to end of stage. From Habib Khel the road is a well defined track passing over a level plain, easy going in fine weather, but difficult for camels after rain.

At 12 miles Matun, capital of Khost, at the junction of the Kaitu and Matun rivers. Matun consists of a large group of villages situated on both hanks of the Matun river which issues from

Garrison at Matun in 1912 was reported to be as follows:-

- 3 mountain batteries, 12 guns
- 2 field batteries, 12 guns
- 4 machine guns
- 1 regiment cavalry
- 3 battalions infantry

also 600 khasadars.

In the summer the Governor and most of the garrison move to Gabar situated in the hills separating Khost from the upper waters of the Kurram river.

Camping ground*.—For 2 or 3 infantry brigades with proportion of divisional troops at least.

Water.—For the above forces at least from the Matun and Kaitu rivers.

Fuel.—Sufficient for a large force could be collected from the surrounding hills within a distance of five miles.

Fodder.—No details, but bhusa probably to the extent of 2,000 to 3,000 maunds should ordinarily be procurable, also khasil to an appreciable extent in the spring; good camel grazing.

Supplies.—No details, but probably about 2,000 to 3,000 maunds unground wheat and barley would normally always be procurable from the Matun villages.

The following routes converge on, or radiate from Matun:

(i) Route 4-A to Hisarak (Pir Sarai); this is a connecting route between the main through Routes 4 and 5.

In addition 2 camel tracks lead from Matun as follows:—

- (a) One running due S., joining Routes in Waziristan, Route 10 to Miram Shah, in stage 2 at the Ghorost nala.
- (b) The other running S.E., joining Routes in Waziristan, Route 13 to Spinwam, at the Dunikot tangi.

Note.—Mr. J. S. Donald crossed the Shabak range in January 1895, and wrote as follows:—

"From the Shabak plain into Khost there are two important roads which lead over the main range which divides the Kurram valley from the northern drainage of the Shamil and Kaitu streams. The Shamil and Kaitu are the names of one and the same stream which is known as the Shamil near Kotkai and becomes the Kaitu lower down.

These two roads lead over the Shina Algad and the Batai passes, both fit for laden camels. On the Khost side these roads run through the Karangi valley, and the distance between the Shabak plain and the Shamil villages of Landar and Sadik by these two roads is about 16 miles. To the south of the Batai pass and close to the Kaisara mountain is the Hassan Khel Gawi road. By this road there is direct lateral communication between Kurram and the country of the Hassan Khel Wazirs. By following this road the Wazir country can be entered without going through the limits of Afghanistan as fixed by the recent demarcation. Laden camels can go up to the Hassan Khel Gawi pass from Shabak, but the descent into the Kaitu is steep and it is only passable for horsemen. The summer settlements of the Wazirs, by this road, from Shabak, are about 16 miles, while their winter encampments are not more than 7 or 8 miles. Their flocks graze right up to the pass. Next to the Hassan Khel Gawi pass and to the south of the Kaisara mountain is the Lalaka pass. I rode up to the top of this pass and came to the conclusion that laden mules could go with difficulty. It could, however, with very little trouble be made passable for laden mules. The descent into the Kawantra valley is the most difficult part of this route. To the north-east of the Lalaka is the Larumai pass. The Larumai is situated on the ridge which divides the drainage of the Shabak plain from that of the Kawantra and Gaur Obo valleys which lie to the south-west of Khapianga. It is by far the easiest pass in this neighbourhood and all the routes to Thal, Biland Khel, Medanni. Shaur, and Zaka go over it. In case it was ever necessary to surprise the Kabul Khel Wazirs from Alizai this route would serve the purpose admirably."

5 HAIDAR KHEL .. 12 m. Camel road.

57 m.

General direction W. Leaving Matun camping ground the road passes between the bazar and a mud-walled fort; the road here is a made camel road and is kept in good

the N.W. and here a long spur runs down from the hills to the N. and commands the road. At 9 miles pass the ruins of an old fort on the left. At 10 miles the dry Zani nala is crossed; no difficulty.

At 12 miles reach the Haidar Khel villages.

Camping ground.—For a division on a grassy plain on the right of the road.

Water.—For 2 infantry brigades, at least, with proportion of divisional troops, from the Shamil river and from tributary streams from the N.

Fuel.—Plentiful within 2 miles of camp from the wooded hills to the N.

Fodder.—About 500 maunds bhusa normally available; good camel grazing.

Supplies.—About 500 maunds unground wheat and barley normally procurable.

6 CAMP ALMARAH: 11 m. Camel road.

68 m.

Road continues W, and gradually approaches the left bank of the Shamil. For the first 6 or 7 miles it is still a good camel road, but is not kept up to the same extent as in the last stage. It runs through an open, fertile, and populated plain. At about 8 miles pass a sarai near left bank of river; opposite on the right bank is the village of Babrak Paian, the residence of Babrak, an influential Jadran malik (1908). All villages below Babrak Paian are inhabited by Khostwals and those above by Jadrans. Beyond this village hills commence on the right bank of the river. Continuing past the sarai a good position for a camp, on high ground, is reached at about 11 miles.

7 BABRAK BALA .. 11 m. Camel road.

79 m.

Leaving camp the road, still fit for camels, follows the left bank of the Shamil, general direction W. At about I mile the hills, to the N. approach close to the river. At 2 miles pass Almarah village on right bank lying at the foot of a long spur, which commands the road up and down the valley. At about 4 miles pass Kahi village on the left bank opposite the junction, from the S., of the Kahi stream with the Shamil. Above this point the Shamil valley narrows and camels can only move with difficulty. At about 6 miles pass the village of Babrak Miana, the former residence of Malik Babrak. At 11 miles reach Babrak Bala hamlets on left bank.

Camping ground.—For 1 infantry brigade with proportion of divisional troops on a good site.

Water.—For the above force from the Shamil stream.

Fuel.—Plentiful from the wooded hills about one mile N. of camp.

Fodder.— Supplies.— No details; probably nothing appreciable.

8 WAZHA .. 13 m. Camel road.

92 m.

The track, still fit for camels, continues up the bed of the Shamil which makes a bend to the N. W. The riverbed is full of smooth, round stones, no big boulders. For the first 6 miles the valley is fairly open, the hills on either side being easy and sparsely wooded. At six miles the Spilgin nula joins the Shamil on the right bank, and in the angle formed by the two streams is the village of Darak. From Darak

Fuel.—Plentiful within 1 mile of camp.

 $\left. egin{array}{ll} Fodder.- \\ Supplies.- \end{array}
ight.
ight.$ No details.

Note.—From Darak to Wazha there is an alternative track which, though about 2 miles shorter, is only fit for mules. This track leaves the Shamil at Darak, and follows up the right bank of the Spilgin nala for about 3 miles. Crossing the Spilgin it then leads over the spur in the V between the two streams by an easy path, and descends again to the Shamil, rejoining the main road near Wazha.

9 JADRAN HAMLETS.. 10 m. Camel road.

102 m.

General direction nearly due N. The track continues up the bed of the Shamil, continually crossing and recrossing the stream (average depth 2' to $2\frac{1}{2}$ ' in September). At about 9 miles it leaves the bed of the stream and ascends to level cultivation on the right bank, thus avoiding a bend in the stream. At about 10 miles reach a cluster of Jadran hamlets near which there is:—

Camping ground.—For 1 infantry brigade with proportion of divisional troops on cultivated ground between the road and the right bank of the river.

Water.—For the above force and more from the river.

Fuel.—Plantiful within 1 mile of camp.

Fodder.— Supplies.— Probably nothing appreciable.

10 LALGUL .. 11 m. Camel road.

113 m.

The track continues for $\frac{1}{4}$ mile over level cultivation and then descends again to the bed of the Shamil, it then ascends the latter at a fairly easy gradient to about mile 4, the valley becoming more and more confined. At 4 miles

made. Wooded hills rise on either side of the track, but flanking

parties could move along them without difficulty.

The summit of the pass is open, the hills on the right (E.) rising only slightly above the level of the road and the range on this side having a general downward trend; to the left (W) the hills rise to a great height (12,640'). The range is well wooded, chiefly with chilgoza (edible pine) trees. Snow is said not to lie very deep on the pass and Ghilzai camels are reported to be able to cross throughout the winter.

The descent on the northern side is easy, the track leading gently downwards over spurs and undulating ground. The foot of the descent is reached at about 91 miles, elevation 9.650' (i.e., a drop of only 500 feet in 2½ miles); at 11 miles reach village of Sardar Lal Gul Khan (Governor of Hariob in 1906),

about 70 houses.

Camping ground.—For 1 infantry brigade with proportion of divisional troops.

Water.—For the above force from an excellent spring on the road just beyond the village.

Fuel.—In large quantities from the hills 2 miles distant.

Fodder.—Fair camel grazing.

Supplies.—Nothing appreciable.

Camel road. General 11 GARDEZ .. 12 m. (7,511').direction N.W. 125 m.

At about 3 mile road crosses an under-feature of the main range and continues to descend gently, over undulating ground with gravelly soil to the cultivated Koshin plain. 11 miles two detached hills are passed, to the right of the road and opposite, to the left is the village of Jahandad Khan, the well-known Ghilzai horse-dealer. The Spin or Sapega Rud

taken to the Kabul market, also ghi and flocks of sheep, Gardez receiving in return fruit, tobacco and cotton cloth.

Two forts outside the town, older one occupied by khasadars, new fort by regular troops. This latter is situated on a mound commanding extensive view over surrounding flat country, but is itself commanded by hills 2 miles to the S. (on left bank of the Sapega) by which guns could easily be taken; it stands among small fortified villages surrounded by gardens and fields irrigated from canals. Walls of the new fort $800 \times$ in circumference, 8' to 12' high and about 5' thick at the base; no bastions or ditches; 3 gates, but northern gate alone covered by traverse. Sapega Rud flows about 1 mile to the S. of this fort.

Garrison in 1911 was as follows:—

- 1 cavalry regiment armed with Martini carbines.
- 1 battery field artillery of 6 muzzle loader guns, 3" to 4" bore, but ill-cared for and dusty.
- 2 battalions infantry armed with Martinis.

There are no regular barracks, but rifles and ammunition are kept in the fort where one year's supplies of grain, etc., for the garrison are also stored.

Camping ground.—Several alternative camping grounds, each for a brigade, in vicinity of the fort.

Water.—For a division or more from both streams, and canals leading from the same.

Fuel.—Could be collected from surrounding hills within a distance of 5 miles, for a division for at least a month.

Fodder.—Khasil daily during March and April for the horses

ROUTE No. 5-A.

ALIZAI TO MATUN. Viâ the Spin Tangi pass.

26 miles.

2 stages.

Authority.—Alizai to the Spin Tangi pass, Crosthwait, 1906; thence to Matun, Carr (Khost expedition, January 1879) and Maconochy, 1894.

Epitome.

General description.—Probably the best line for a cart road from the Kurram valley into Khost. The road itself is far easier than that over the Shabak pass and it offers greater facilities for defence.

Road.—Camel road throughout. At Alizai the Kurram river has to be forded which may cause temporary delay in case of spates; the only other obstacle is the Spin Tangi pass crossed in the first stage, which presents no difficulty. Road open throughout the year.

This route connects at Alizai with Route 28, Routes South of the Kabul River.

Camping ground.—For 2 or 3 battalions only at Sabari, the intermediate stage.

Water.—Precarious at Sabari, the intermediate stage, where transport animals might have to be watered at the Kaitu river 3 miles S. of camp.

Fuel.—Scarce en route.

Fodder.—Only a little camel grazing en route.

Supplies.--Nothing en route.

| No. | | , | |
|---|--------|-------------|-------------|
| of stage and total dis- tance. | | DETAILS | J. |
| 1 | SABARI | 15 m. | Camel road. |

surrounded by low hills easily crowned and defended. This would make a good camping ground; there is a certain amount of water and more could probably be got by digging. From here the road follows the right bank of the nala; the valley is everywhere easy and with comparatively little work the road could be made fit for wheeled artillery. At 9 miles the road bifurcates; the branch to the right (the present route) leads to the Spin Tangi pass, that to the left runs due S. and at 7 miles joins the main Route 5 at Ghilzai village in stage 3. At $9\frac{1}{2}$ miles the Spin Tangi pass (4,028') is crossed; ascent easy, the total rise from the Kurram river to the crest of the pass is only some 800'.

Road gradually descends, direction S.W., on to a level uncultivated plain called Tor-i-Oba. At 13 miles Route 58 joins this Route from the N.W. At 15 miles Sabari.

Camping-ground.—Good and open; probably sufficient for 2 or 3 battalions at least.

Water.—Precarious; it might possibly be necessary for all animals to be watered at the Kaitu river 3 miles to the S.

Fuel.—Sufficient for the requirements of 1 infantry brigade for the day, could probably be collected within 2 or 3 miles of camp, owing to the existence of patches of dwarf palm (mazrai).

Fodder.— } No details; probably nothing appreciable; good camel grazing.

2 MATUN .. 11 m. Camel road, but diffi-(3,892') cult after rain.

The road passes over a level plain, direction S.W., good in fine weather, but very bad for camels after rain. Leaving the Sabari valley it crosses a low *kotal* and then runs S. till the Kam Khost *nala* is crossed at 5 miles. Thence S.W. to the villages of Bayi and Abkhel passed about 8 miles when the

ROUTE No. 5-B.

HAZIR PIR (KURRAM) TO SABARI.

18 miles.

2 stages.

Authority.—Maconochy, 1894.

Epitome.

General description.—One of the roads from the Kurram valley into Khost, and probably the best route into the Khost valley if opposition is expected. Starting opposite Arawali, stage 7 of Route 28, Routes South of the Kabul River, it joins Route 5-A, near its second stage and together with the last stage of this route forms an alternative route from the Kurram to Matun.

Road.—Good camel road throughout. No obstacles encoun-

tered.

Route open throughout the year.

Camping ground.—For 1 infantry brigade at Zer Kamar, the intermediate stage.

Water.—Sufficient for the above force at Zer Kamar.

Fuel.—No details.

Fodder.—Grass and forage procurable at Zer Kamar; fair to good camel grazing throughout.

Supplies.—Nil.

| No. of stage and total distance. | State and Complete State Stat | DETAILS. | | Magazi (Lindra) ya Mariyat Milada | |
|----------------------------------|---|----------|-------|-----------------------------------|--|
| 1 | ZER KAMAR | 9 m | Camel | road. | |
| 9 m. | | | | .1 77 | |

Road for about ½ mile runs due S. down the Kurram valley when it ascends and crosses a stony plateau and ridge, descending into the Sam Gokh valley at about $1\frac{1}{3}$ miles. Thence across the valley, direction still S., passing Kach at about $1\frac{3}{4}$ miles; at 3 miles road turns S.W. maintaining this direction to end of the stage; at about 4 miles it passes over a

ROUTE No. 5-B—concld.

Water.—Procurable in nala and more can be obtained by digging; probably therefore sufficient for the above force.

Fuel.—No details.

Fodder.—Little grass procurable in summer; good camel grazing.

Supplies.—No details; probably nil.

SABARI ..

9 m. Camel road.

18 m.

Road continues S.W. through a labyrinth of low hills, At 3 miles the Afghan border is crossed, after which the road emerges from the hills and runs over a stony plain, still S.W. which direction is maintained to the end of the stage. At 7 miles the road joins Route 5-A along which it continues to end of the stage. At 9 miles Sabari.

Camping ground.— Water.— Fuel.— Fodder.— Supplies .-

Vi!e Route 5-A, stage 1.

ROUTE No. 5-C.

HAZIR PIR (KURRAM) TO MATUN.

Viâ Jaji Maidan and Yakubi.

 $36\frac{1}{2}$ miles.

4 stages.

Authority.—Khost expedition, January 1879.

Epitome.

General description.—Route traversed by the Khost valley column under General Roberts from the Kurram to Matun in

ROUTE No. 5-C-contd.

Water.—For the above force at least at all intermediate stages. Fuel.—Scarce throughout.

Fodder.—Scarce, but grass is procurable in summer at Jaji Maidan and bhusa at Nawar, stage 2; fair to good camel grazing throughout.

Supplies.—Nothing appreciable except at Nawar, stage 2, where 1,000 maunds unground grain generally procurable. For supplies, etc., at Matun, vide Route 5, stage 4.

| No. of stage and total dis- tance. | | DETAILS. | | |
|------------------------------------|-------------|----------|-----------------|----------|
| 1 [| JAJI MAIDAN | | Camel road, | |
| 10m 4f | | COI | nvertible to ca | rt road. |

General direction N.W. Leaving Hazir Pir the road follows the left bank of the Jaji Maidan river; the road is good and very little labour would make it fit for wheeled artillery. The country generally throughout the stage consists of open, rolling hills with occasional small plains; the hills are stony and bare except for the low, dwarf palms. At 7 miles the Afghan frontier is crossed. From here a camel road runs due N. to Ahmadzai in the Kurram valley about 15 miles distant, passing the Lakka Tigga frontier post at 2 miles and crossing the Darwazagai pass at 10 miles. At 10½ miles Jaji Maidan, consisting of a cluster of 7 villages situated in a small basin surrounded by easily accessible hills; the whole basin is under rice cultivation.

Camping ground.—No place for the troops to encamp except in the rice fields, which from January to August are dry and very suitable for a camp; probably sufficient for an infantry brigade with proportion of divisional troops.

Water Barthar ham form and more from the Toji Maidan

2 NAWAR — 11 m. Camel road, easily convertible to a cart road.

General direction S.W. Between Jaji Maidan and Nawar the road passes over the Dunni *kotal*, the only bit of the route where opposition would be likely. Practicable for everything but wheels. The hills are devoid of cover.

Immediately beneath the camp, running through the Jaji Maidan valley, is a deep nala which delayed the camels very much. The road for $4\frac{1}{2}$ miles is up a fairly open valley with easily accessible hills on either side, and with several small villages in it, till the kotal is reached by a gentle ascent. Three more nalas are passed in the valley, but they can all be easily crossed by making a detour. The hills on either side are bare, not practicable for cavalry, but are easy for infantry. The kotal is a low ridge, commanding a fine view of the Khost valley. The descent is steep and rough for the first mile; it then passes along the top of a spur from the kotal range for about $\frac{3}{4}$ mile where the road descends into the bed of the large river, which runs through this part of the Khost district. The main valley, a broad open plain studded with numerous villages and covered with cultivation, is now entered.

The climate of the Khost valley is markedly warmer than that of Kurram.

Camping ground.—On good dry ground near the village of Nawar; probably sufficient for at least 1 infantry brigade with proportion of divisional troops.

Water.—Sufficient for the above force from the stream.

Fuel.—Scarce.

Fodder.—About 1,000 maunds bhusa should normally be procurable here; good camel grazing.

Supplies.—No details, but it is probable that in this culti-

ROUTE No. 5-C-concld.

efflorescence, and dangerous bogs abound, so much so that the cavalry flankers of General Roberts' force had to be recalled. It is therefore important to remember that the transport should adhere closely to the road.

Camping ground.—For 1 infantry brigade with proportion of divisional troops on the right bank of the stream which flows just N. of Yakubi.

Water.—For the above force at least from the stream above referred to.

Fuel.—
Fodder.—
Supplies.—
No details; probably nothing appreciable; good camel grazing.

4 MATUN .. 9 m. Camel road. Easily convertible to a cart road.

Road continues due S. over an open plain. At 3 miles the Khawanich pass which leads through a low range of hills; no difficulty. Leaving these low hills the road once more emerges on to an open plain over which it runs, direction still due S. At 9 miles Matun, the capital of Khost.

 $egin{array}{c} Camping \ ground.-- \ Water.-- \ Fuel.-- \ Fodder.-- \ Supplies.-- \end{array}
ight\} Vide \ ext{Route 5, stage 4.}$

ROUTE No. 6.

STARA BIBI (TOCHI VALLEY) TO GHAZNI. Viâ the Kotanni pass.

92 miles. 10 stages.

Authority.—Stage 1 Cockerill, 1897; native informa-

offer the best alignment for a permanent cart road from the Tochi to Kabul or Ghazni.

Road.—First two stages camel road; thence to Patanna, stage 6, camel road easily convertible to a cart road; Patanna to Ghazni unmetalled cart road 12', trenched on either side.

The following obstacles are encountered:-

(i) Several small kotals or narais in the 2nd stage: no difficulty.

(ii) Kotanni pass (8,000'), in the 4th stage; ascent and

descent easy, pass always open.

(iii) Jilga river forded in the 8th stage; no difficulty even after rain.

Route open throughout the year.

Water.—For a division at stages 2 and 8, and at Ghazni, for at least 1 infantry brigade with proportion of divisional troops at the remaining stages.

 $\bar{F}uel$.—Plentiful at stages 3 and 4; otherwise very scarce

throughout.

Fodder.—Khasil in spring daily for the horses of a cavalry brigade; bhusa to an appreciable extent at stages 2, 5, and 8; good camel grazing throughout except in winter when it would be very scarce.

Supplies.—Unground wheat and barley to an appreciable extent at stages 2, 5, and 8; for supplies, etc., at Ghazni see stage

10.

| No. of stage and total dis- tance. | | DETAILS. | | | |
|------------------------------------|---------|----------|------|-------------|--|
| 1 | GUL MIR | • • | 9 m. | Camel road. | |
| | | | | | |
| 9 m. | | | | | |

Camping ground.—Probably sufficient for one infantry brigade with proportion of divisional troops, on an open space N. of the village.

Water.—For the above force at least from the Dargai stream $1\frac{1}{2}$ miles S. of camp and from a karez.

Fuel.—A limited supply of wood available.

Fodder.—Good camel grazing.

Supplies.—Nil.

2 PIR KOTI .. 11 m. Camel road.

20 m.

General direction W. From Gul Mir's village two roads lead towards Guian (Gyan) one along the stream, the other by the hill to the N.; the former is easier, but longer. Gyan (200 houses) is about 4 miles W. of Gul Mir's village. Here there is—

Camping ground.—For 1 infantry brigade with proportion of divisional troops on a good site.

Water.—For the above force from the stream.

Fuel.—No details.

Fodder.—No details, but it is probable that an appreciable amount of bhusa could be collected here, good camel grazing.

Supplies.—Probably a few hundred maunds unground grain

normally procurable.

Beyond Guian the road crosses some cultivation, and is easy and fit for camels, gradually rising again into the hills. The highest narai is called the Inzak narai which is four hours from Guian (some 4 miles by the map). This is very high and difficult and the road narrows. Beyond the Inzak narai, a spring, called Aspi Dor, is reached, which is half-way between Guian and Pir Koti. There is no cultivation and no village.

water-mills; inhabitants, Kakars, Sulaiman Khel, Jadrans, Kharotis, and Saiyids.

Note.—According to Douglas, there is another road from Lwara to Pir Koti which leads down the Dangai Algad to its junction with the Mastoi, and thence up the Mastoi. This latter part was said to be quite easy for camels, but Browne says the road is scarcely used except by men on foot, as the valley is very narrow and winding, with frequent tangis which are impassable in the rains. There are several small villages on strips of cultivation along both banks.

Camping ground.—Probably sufficient room for a division, on a large maidan.

Water.—Probably sufficient for a division from several karezes and the river.

Fuel.—No details.

Fodder.—Probably 500 maunds bhusa normally procurable; good camel grazing.

Supplies.—At least 500 maunds unground wheat and barley should normally be available.

The following roads radiate from Pir Koti:—

- (i) Through the Jadran country by the Manzhai narai (a high pass) down the Shamil Algad to Matun—4 days' march.
- (ii) To Margha viâ the Gurbezhai narai (vide Route 6-A, Note a).
- (iii) to Urgun—
 - (a) By the Pozhai narai, very difficult for camels, but much used by men on foot;
 - (b) through Ghandai and Balisho. Road level and easy the whole way.
- 3 SHAHTORAI .. 9 m. Camel road, easily convertible to a cart road.

Leaving Pir Koti the road changes its direction and now leads due N. up a wide valley, with no cultivation or ravines

Water.—For the above force at least from a stream near camp. Fuel.—Wood to a considerable extent could be brought in from the hills to the E. within 2 or 3 miles of camp.

Fodder.—No information; probably good camel grazing.

Supplies.—Nil.

At Shahtorai Route 6-A joins this Route from the S.E.

4 SANGAR .. 9 m. Camel road easily convertible to a cart road.

Leaving Shahtorai the read changes its direction once more and now leads due W., direct for the Kotanni pass over the Sarafsar range. At 6 miles the foot of the pass is reached; the range at this point runs nearly N. and S. and is crossed by the road at right angles. The country between Sangar and this range of hills consists of an open undulating plain, offering no obstacle to the movement of troops. At the foot of the pass there is a site for an alternative camp, and near by there used to be (1897) the temporary village of Gulidin, a Kharoti Ghilzai. Here there is—

Camping ground.—On a large maidan near a good spring; probably sufficient room for at least one or two infantry brigades, with proportion of divisional troops.

Water.—Probably sufficient for the above force, from the spring referred to, and also from a stream flowing along the foot of the hills.

Fuel.—Wood plentiful; the hills in the Sarafsar range are wooded, hence wood to a very considerable extent could be brought in from within 2 or 3 miles of camp.

Fodder.—Good camel grazing.

Supplies.—Nil; there is no cultivation.

Leaving this camp the ascent of the Kotanni *narai* is immediately commenced. The road follows a *nala* bed, gradient 1 in 20, and is very easy, having been improved by the Amir; camels are able to cross the pass even in winter. At $7\frac{1}{4}$ miles after

locally as robat); sarai, 300× square, 3 faces loopholed for a total of 150 rifles, garrison (1911) 8 sepoys.

Camping ground.—For one infantry brigade with proportion

of divisional troops on level ground W. of the sarai.

Water.—Abundant for the above force from a stream adjoining the sarai.

Fuel.—To a considerable extent from the wooded Sarafsar hills within 1 or 2 miles of camp.

Fodder.—No details; probably fair camel grazing.

Supplies.—Nil.

From Sangar the following routes radiate:-

Route 6-D, which runs nearly due N. to Gardez.

Route 6-E, which forms an alternative route to stages 5 and 6 of this main route (Route 6).

5 SARAFSAR .. 8 m. Camel road easily convertible to a cart road.

Leaving camp, the stream which is always fordable, has to be crossed immediately; no difficulty; the road then continues N.W., over the plain. At 4 miles Sultani is passed, 2 miles W. of road; throughout this stage the country consists of an open, uncultivated plain; at 8 miles the large group of villages known as Sarafsar, also as Shah Saruf, Sarfaraz and Sarup Sher; 800 houses; inhabitants Kharoti and Sulaiman Khel Ghilzais.

Camping ground.—No details, but it is probable there is camping space here for at least 2 infantry brigades with proportion of divisional troops, if not more.

Water.—For the above force at least from the Faltoi stream,

1 mile E. of camp. Fuel.—No details.

Fodder.—No details; but about 500 maunds bhusa should normally be procurable.

Supplies.—It is probable that at least 500 maunds unground

own cultivation. At 2 miles a well known spring is passed on the left of the road. At 9 miles Patanna (or Paltanna) which consists of 2 small fortified hamlets on the right bank of the Palt stream.

Camping ground.—For at least 2 infantry brigades with proportion of divisional troops on an open plain.

Water.—For the above force at least from Palt stream.

Fuel.—Nil.

Fodder.—Probably good camel grazing on the plain.

Supplies.—No details.

At Patanna Route 6-E, an alternative route from Sangar (stage 4) rejoins this route.

7 KALA IBRAHIMZAI .. 10 m. Unmetalled cart road
12', trenched on either side.

The road still continuing N.W., now enters on the Zurmat plain which it traverses as far as Band in the next stage; this plain is devoid of all obstacles. At 3 miles Kala Hachanna (12 houses); at 4 miles Kala Ghundin (15 houses); at 5 miles the Sulaiman Khel village of Suwas; here small irrigation channels cross the road from the N. At 11 miles Kala Ibrahimzai (10 houses) on the right of the road.

Camping ground.—For at least 2 infantry brigades with proportion of divisional troops.

Water.—Sufficient for this force from irrigation channels and karezes.

Fuel.—Nil; dung cakes and thorn bushes are used by the inhabitants for fire-wood.

Fodder.—Probably good camel grazing.

Supplies.—No details.

In summer about 1,000 camels and 200 donkeys are always procurable here, but in winter the *Powindahs* migrate to India with their transport

begins. On the left bank of the river is the Ghilzai village of Band (40 houses). Here there is—

Camping ground.—Probably for 1 or 2 infantry brigades with proportion of divisional troops.

Water.—Probably for a division from the Jilga river.

Fuel.—Very scarce.

Fodder.—An appreciable quantity of bhusa procurable. Fair camel grazing.

Supplies.—Unground grain to some considerable extent always available.

At Band Route 4-F, from Gardez joins this route, coming in from the N.E., and hereafter to Ghazni it is identical with the present route.

Immediately after leaving Band the Jilga river is forded. In August 1907, there was only a few inches of water in the stream and in August 1908 there was 2 feet of water, when the river was muddy and swollen; banks low and easy; opposite Band, on the right bank of the river is the Ibrahimzai village of Mursal Ghundai (50 houses); paths run along both banks of the river to the Shilghar villages. Across (N. of) the Jilga the country is slightly undulating. At 6 miles Sultan Bagh (20 houses), at $7\frac{1}{2}$ miles Kala Hiuddin, N. of the road, at 8 miles Kala Tamba and at 9 miles Kala Niaz (25 houses) on the left of the road; inhabitants mostly Ibrahimzai Ghilzais.

Camping ground.—For 1 infantry brigade only, and units may have to be scattered.

Water.—For the above force from a spring.

Fuel.—Nil.

9

Fodder.—Fair camel grazing.

Supplies.—No details.

ABDUR RAHMAN 10 m. Unmetalled cart road 12'.

along the road from karezes. At 6 miles Godallai (30 houses) on the left of the road; here several irrigation cuts cross the road, the water flowing from the S. At 11 miles the Andar Ghilzai village of Abdur Rahman (50 houses).

Camping ground.—For 1 infantry brigade with proportion of divisional troops on a good site.

Water.—For at least twice the above force from the stream and several karezes.

Fuel.—Very scarce.

Fodder.—Good camel grazing. Supplies.—Nothing appreciable.

10 GHAZNI .. 9 m. Unmetalled cart road 12'.

At $2\frac{1}{2}$ miles the Sulaiman Khel village of Arzu (60 houses), and at 3 miles Shalez conspicuous by its fort. On the 23rd April 1880 Sir Donald Stewart with $1\frac{1}{2}$ infantry brigades, 1 cavalry brigade, one battery Royal Horse Artillery and 1 mountain battery inflicted a severe defeat on a large body of Afghans holding the villages of Arzu and Shalez. From Shalez a camel track runs N.E. to Gardez. At 6 miles Kala Abdul Ahmad, a fort on the right of the road built in 1908 by a mirza of that name, who has added a large garden, enclosed by a wall, just outside the fort. Nearing Ghazni several suburbs are passed. At 10 miles Ghazni.

Ghazni (7,279') Population 6,000, Garrison (1912) 1 regiment cavalry (Logari), 1 mountain battery, 2 battalions infantry, (a third "Herati" battalion proceeded to Herat in 1910 and is unlikely to be replaced). Garrison commanded by a General. Ghazni is situated on the left bank of the river of the same name; town once so famous now decayed and of no military strength; shaped like an irregular square with total circuit of 2,175× (ex-

bad and confined to one well which is sometimes dry. Following extracts from a report by an Engineer officer of Sir Donald Stewart's force, dated April 1880 gives an idea of the fortress then; as far as it is known it is in the same condition at the present day. "A ruined citadel, broken and useless parapets, cracked and tumbled down towers, crumbling curtain walls and a silted up ditch, are all that remain of the once famous stronghold of Ghazni No further demolition would render Ghazni less important than it is as a fortress, and taking into consideration its very defective construction, and the fact that from its situation a command of fire and observation will always be obtainable over the whole of it, no amount of repair could give it any real importance or cause any loss of time in reducing it."

The river flows past W. face of the fort. In April 1911 it was 50× broad, 3' deep; sandy bed with pebbles; right bank 4' to 6' high, left bank flush with the river; excellent water, but decreases greatly in summer. There is a bridge over the river close to the W. angle of the town; bridge 42× long, roadway 15' wide, and 10' above the water, supported on wooden piles, strongly built, fit for all wheeled traffic and is never damaged

by floods.

Camping ground.—For a division; the British camp in 1880 was about 1 mile N.E. of the town.

Water.—For a division and more from the Ghazni river. Fuel.—Very scarce; wood is usually not to be had for fuel and its place is supplied by thorny scrubs which grow in the surrounding country.

Folder.—Grass nil; khasil for horses of l cavalry brigade at least daily between the 15th March and 15th May; about 5,000 maunds bhusa normally procurable. Camel grazing excellent except in winter.

Supplies.—The food supplies normally available at Ghazni are:-

On the capture of Ghazni by the army of the Indus in 1839 500,000 lbs. of wheat, and barley and about 80,000 lbs. of flour were found in the place.

ROUTE No. 6-A.

·DOTOI (TOCHI VALLEY) TO SHAHTORAI.

Viâ Urgun.

52 miles.

5 stages.

Authority.—Stage 1, Kemball and Cockerell, 1897; thereafter native surveyors, 1907 and 1908.

Epitome.

General description.—An alternative route from the Tochi valley to the first section of the through Route 6, which is joined at its 3rd stage. It is also part of a *Powindah* route between the Tochi and Kabul. It connects at Dotoi with Routes in Waziristan, Route 1.

Road.—1st stage, mule road; thence camel road throughout with the exception of the first 4 miles of the last stage which is an unmetalled cart road 12'.

The following obstacles are encountered along the route:

- (i) Landslips near Taki in the 1st stage, making this portion. of the road difficult even for mules.
- (ii) Kotal in the 4th stage marking the Wazir-Afghan boundary; no difficulty.
- (iii) Several streams forded; temporary obstruction possible after heavy rain. Route open throughout the year.

Camping ground.—For a division at stage 4; for 2 infantry brigades with proportion of divisional troops at stages 1 and 2 and for half that force at stage 3.

March and April; bhusa at Margha about 500 maunds and in large quantities at Urgun; fair camel grazing throughout.

Supplies.—At Margha (stage 2) supplies for an infantry brigade for at least 1 week and at Urgun (stage 4) possibly for a division for 2 or 3 days.

| No. of stage and total dis- tance. | | | DETAILS. | |
|------------------------------------|----------|-----|-----------|------------|
| 1 | PIYAODIN | • • | 7 m. 4 f. | Mule road. |
| 7m. 4f. | | | | |

Leaving Dotoi, road runs up the Margha stream, direction S.W. along the Afghan border; bed is very narrow and the stream is crossed frequently. At 2 miles pass the mouth of the Sind Algad, up which is the easiest route into the Zawe valley (Routes in Waziristan, Route 41). 5 miles Domandi, at the mouth of the Gorwekh ravine, up which a road (Routes in Waziristan, Route 42) leads to Mangrotai in Birmal. At 6 miles Gulin, a large Macha hamlet on the left bank, and at 6½ miles Taki, the last Madda Khel village in this direction, on the right bank. Here the frontier is crossed. the road passing into Afghan territory. About 1 mile beyond Taki there have been heavy landslips on the left bank. The river-bed becomes narrow and impassable, the road accordingly rises over a landship called Kamkai (or small) Maramuli Ghasha; path narrow and steep but passable for mules. About 200× further on, the road again leaves the river-bed, and rises over the Loi (or big) Maramuli Ghasha; higher and more difficult than the Kamakai Maramuli. At 7½ miles the Paipali village of Piyaodin, where there is a khasadar post: garrison 1 officer and 50 men.

2 MARGHA .. 10m. 4f. Camel road.

18 m.

Road continues S.W. up the Margha valley crossing the stream several times (2' deep in November 1908), and leaving it occasionally to cross a spur; road easy and no kotals, but with high hills on the left of the road. Many temporary villages of the Kabul Khel Wazirs passed on the way, but there is little or no cultivation till near Margha, where the country is highly cultivated. At $7\frac{1}{2}$ miles a few Paipali forts. At $8\frac{1}{2}$ miles the hills open out and at 9 miles the road crosses to the right bank, no difficulty in fording the stream. At $10\frac{1}{2}$ miles Margha (300 houses), a square walled village belonging to the Saifali section of the Kabul Khel Wazirs. It is the principal settlement in Birmal and the Amir has an agent here.

Camping ground.—For at least 2 infantry brigades with

proportion of divisional troops.

Water.—For a division from the river, which is joined here by several streams.

Fuel.—Very scarce.

Fodder.—In March and April khasil daily for the horses of 1 cavalry regiment; 500 maunds bhusa normally available; fair camel grazing.

Supplies.—500 maunds unground grain usually procurable; also ata, ghi and rice sufficient for 1 infantry brigade for at least a week; about 500 sheep and a large number of fowls always procurable.

3 Camp RAH-I-KHAR.. 12 m.—Camel road.

30 m.

Leaving Margha the road runs nearly due N. and at 1

no difficulty. At $6\frac{1}{2}$ miles Daran Kala, where the road turns sharply S.W. and crossing a spur leaves the Mastoi valley.

NOTE (a).—From Daran Kala a camel track continues nearly due N., up the Mastoi valley, and over the Gurbezhai narai, an easy pass to Pir Koti, stage 2 of Route 6, which is reached at 7 miles, thus forming a connection between the present Route (6-A) and the main through Route 6.

The road now is known as Rah-i-Khar and continues S.W. to the end of the stage, reached at 12 miles.

Camping ground.—For one infantry brigade with proportion of divisional troops.

Water.—For double the above force from the Khar Algad. Fuel.—Scarce.

Fodder.— No information; probably nothing appreci-Supplies.— able.

4 URGUN .. 12 m.—Camel road.

42 m.

Road runs up a ravine with steep hillsides, direction S.W. At 2½ miles a kotal is reached, this is the Wazir-Afghan boundary. The ascent and descent of the pass are easy, but road would require improvement before being passable by wheeled artillery. Shortly after the pass is crossed the road begins to bear away N.W., which direction is maintained to Urgun. The descent of the pass is very gradual and continues for 3 miles when the road emerges from the hills to a sloping plain (daman) on which there is good camel grazing and several Kharoti kirris. At 9 miles the Len Rud is crossed and at 10½ miles, Deh Shaikhan (50 houses) is passed. At 12½ miles the large, fortified town and civil station of Urgun (1,000 houses) where the governor of the district resides; inhabitants mostly Tajiks, though the surrounding country outside is occupied by Kharoti Ghilzais. There are 2 powder and 3 flint-gun manufactories here: garrison (1908) 2 squadrons cavalry, 6 moun-

ROUTE No. 6-A—concld.

Fuel.—Very scarce.

Fodder.—Bhusa to a large extent; excellent camel grazing. Supplies.—Supplies of all sorts are available in large quantities, probably sufficient for a division for 2 or 3 days, but flour for the troops is imported from Zurmat.

At Urgun 4 other routes converge, as follows:-

(i) From Pir Koti-

(a) a short route $vi\hat{a}$ the Pozhai Narai; very difficult for camels, but much used by men on foot;

(b) a longer route, along open ground the whole way, through the village of Balisho (20 houses), and

thence to Urgun, quite easy going.

- (ii) From Sarafsar, through Sultani, Roshun village (20 houses) and by the Zameh kotal, 1½ miles from Urgun. The kotal is difficult on the E. side and the track lies over rock for 500 yards. It is fit for mules only. This route is very difficult owing to frequent abrupt ascents and descents.
- (iii) From Kamkai Sarafsar, said to be fit for laden camels.
 - (iv) Route 6-C from Shakin.
- 5 SHAHTORAI .. 10 m. First 4 miles unmetalled cart road 20', 52 m. thence camel road.

General direction N.W. Leaving Urgun the road leads for the first 4 miles across the open Urgun plain, after which it enters the hills and follows up the bed of the Shahtorai nala; the stream has to be forded periodically and normally presents no obstacle as the banks are low and easy, but after heavy rain it is temporarily unfordable. At $5\frac{1}{2}$ miles high but not steep hills, wooded with chilghoza, shut in the road on either hand. Between the 6th and 7th miles some broken bridges with fords

ROUTE No. 6-B.

MIR TSAPPAR TO GUL MIR.

15 miles.

1 stage.

Authority.—Douglas, 1895.

Epitome.

General description.—Route through Afghan territory from Mir Tsappar which joins the main through route from the Tochi to Ghazni (Route 6) in its first stage.

Road.—Mule road, possibly also passable for camels. No obstacles met with, route open throughout the year.

Camping ground.—

Water.—

Fuel.—

Fodder.—

Supplies.—

There is no intermediate stage.

| No. of stage and total dis- tance. | | DETAILS. | |
|------------------------------------|---------|--------------|--|
| 1 | GUL MIR | 15 m. | Mule road, probab- ly also passable for |
| 15 m. | | | camels. |

The most direct route descends the Mir Tsappar Algad for 3 miles to Pucha Mela, it then turns S.W. and after crossing three low kotals, descends into a dry nala called Shangai at $6\frac{1}{2}$ miles, follows down it to the S.W., to 10 miles. Here the Shangai is joined by another branch and the road follows the stream turning sharp to the left through a narrow tangi. Two miles further on Usman Kusht is reached, a ruined fort and open

ROUTE No. 6-B—concld.

At Usman Kusht the main Route 6 is joined which is followed for 3 miles to Gul Mir, the first stage of that route.

Camping ground.—`]
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide, Route 6, stage 1.

ROUTE No. 6-C.

SHAKIN TO URGUN.

Viâ the Spidar narai.

33 miles.

3 stages.

Authority.—Browne, from native information, 1897.

Epitome.

General direction.—A direct route connecting S. Waziristan with Urgun (Route 6-A, stage 4) in the first instance, and viâ Urgun with Ghazni and Gardez. Information is only from native sources and is very incomplete.

Road.—Said to be fit for camel transport throughout. The Spidar narai in the 2nd stage is the only obstacle encountered; it presents no real difficulty. Route open throughout the

year.

Camping ground.—For 1 infantry brigade at both inter-

mediate stages.

Water.—Sufficient for an infantry brigade at both intermediate stages.

Fuel.—Scarce throughout.

Fodder.—Fair camel grazing along the whole route,

Supplies.—Nil.

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ROUTE No. 6-C—contd.

Leaving Shakin the road runs due N. parallel to a low range of hills which flanks the road on the W. At 4 miles the road follows the hills which bend N.W. At about 12 miles there is a good site for a camping ground.

Camping ground.—Probably for an infantry brigade, at least. Water.—For the above force from a stream near camp. Fuel.—Very scarce.

Fodder.—Good camel grazing.

Supplies.—Nil.

2 SAROBI .. 12 m. Camel road.

24 m.

General direction N. Road now runs through low hills separated at intervals by open plains. At about 6 miles cross the Spidar narai, a pass over the watershed between the head waters of the Shakin and Urgun streams; ascent and descent of the pass easy at all times of the year. At 12 miles, Sarobi, on the left bank of the Urgun stream.

Camping ground.—For one infantry brigade at least.

Water.—For the above force and more from the Urgun stream.

Fuel.—Very scarce.

Fodder.—Good camel grazing.

Supplies.—Nothing appreciable.

3 URGUN .. 9 m. Camel road.

33 m.

Road now follows the left bank of the Urgun stream to Urgun, direction N.E. On each side of the valley are

ROUTE No. 6-D.

SANGAR TO GARDEZ.

44 miles.

3 stages.

Authority.—Native surveyor, 1908.

Epitome.

General description.—A connecting route between the 2 through Routes 6 and 4.

Road.—Camel road throughout, probably convertible to a cart road without much difficulty. The only obstacles met with are (i) the Sirko kotal in the 2nd stage, the ascent and descent of which are easy; and (ii) the Jilga river, which is forded just before Gardez is reached; the ford is easy and, even after heavy rain, the passage of the river presents no difficulty. Route open throughout the year.

Camping ground.—For a division at stage 1 and for 2 infantry brigades with proportion of divisional troops at stage 2.

Water.—For a division at both the intermediate stages from karezes.

Fuel.—Very scarce.

Fodder.—Fair camel grazing along the route.

Supplies.—Nil at intermediate stages. For supplies, etc., at Gardez, see Route 4, stage 6.

| No. of stage and total dis- tance. | DETAILS. | | | | | |
|------------------------------------|----------|-------|-----|-------|-------------|--|
| 1 | SAR | DIWAL | • • | 15 m. | Camel road. | |
| 15 m. | | | | | | |

Leaving Sangar the road immediately crosses a stream which is always fordable; no difficulty. The road then begins to bear slightly away to the eastward from the main

Fuel.— }
Fodder.— } No information; probably nothing appreciable.
Supplies.— |

From Sarozai a camel road runs S.E. to Sarafsar (Route 6,

stage 5) which is only 3 miles distant.

Leaving camp the road veers round to the N. and continues in this direction to the end of the stage. At 11 miles the Sirko kotal is crossed; ascent and descent very gentle, the pass being merely a road through low hills. At 15 miles Sar Diwal, name given to a fortified sarai of the usual type near the Ghilzai village of Gadezai.

Camping ground.—For a division on a large, open plain

adjoining the sarai.

Water.—For a division from several good kurezes.

Fuel.—Very scarce.

Fodder.—Fair camel grazing.

Supplies.—Practically nil. .

2 LAK DIWAL .. 15 m. Camel road.

30 m.

The road continues due N. across a bare, open plain intersected at intervals by nalas. At 10 miles the Ghilzai village of Kala Dehri, W. of the road, near which there is a good karez; no water can be relied on until this is reached. At 12 miles an easy but broad nala is crossed. At 15 miles Lak Diwal, near which is a village and fortified sarai of the same name.

Camping ground.—For at least 2 infantry brigades with proportion of divisional troops on an open plain.

Water.—For a division from good karezes.

Fuel.—Wood very scarce.

Fodder.—Good camel grazing.

Sunnlies.—Nothing appreciable.

ROUTE No. 6-D—concld.

other villages are visible some distance from the road. At 9 miles Ibrahim Khel, also known as Jana Khel (400 houses). Here the Jilga river is reached, and the road continues along its left bank to about 14 miles where it crosses the river by an easy ford; bottom firm, banks low and easy, current slow. Across the river is the Ghilzai village of Kala Shaikhan. At 14 miles Gardez, the capital and civil head quarters of Zurmat.

Camping ground.—;
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 4, stage 6.

ROUTE No. 6-E.

SANGAR TO PATANNA.

15 miles.

1 stage.

Authority.—Native surveyor, 1908.

Epitome.

General description.—An alternative route to stages 5 and 6 of Route 6.

Road.—Camel road; could only be made passable for carts after considerable labour.

No obstacle encountered. Route open throughout the year.

Camping ground.—
Water.—

Fuel.—

Fodder.—

Supplies .-

There is no intermediate stage on this route.

ROUTE No. 6-E-contd.

Leaving camp, the Sangar stream, which is always fordable, has to be crossed at once. Here Route 6 is left and the road branches off nearly due W. The country now traversed is much broken and would require considerable labour to be made passable for carts. At 2 miles enter low hills. At 6 miles the Kharoti village of Kala Sultani (30 houses), where the Sangar stream is joined once more. At $6\frac{1}{2}$ miles Kala Haji (10 houses). At 9 miles Kala Jabar (15 houses) where the road emerges from the hills on to an open plain. At about 15 miles Patanna (or Paltanna) which consists of 2 small fortified hamlets on the right bank of the Palt stream.

 $\left. \begin{array}{l} Camping\ ground.-\\ Water.-\\ Fuel.-\\ Fodder.-\\ Supplies.- \end{array} \right\} Vide\ \text{Route 6, stage 6.}$

ROUTE No. 7.

DOMANDI (GOMAL VALLEY) TO GHAZNI.

Viâ Staghai kotal, Kala-i-Babakar and Pannah.

 $162 \ miles$.

14 stages.

Authority.—Broadfoot, 1839; native surveyor, 1904. Epitome.

General description.—The main through route from the Gomal valley to Ghazni, and part of the main kafila route between India and Ghazni. For centuries past this route, generally known as the Gomal Route, has been a recognised road for kafilas travelling from Afghanistan to the plains of India and has twice formed the route for an army invading India.

It connects at Domandi with Routes in Waziristan, Route 66 and at Nani (stage 13) with the main Kabul-Kandahar route

- (ii) The Staghai kotal (5,000') in the 2nd stage; ascent and descent easy.
- (iii) Kotal-i-Sarwandi (7,500') in the 8th stage; ascent and descent easy.
- (iv) Gazdarra pass or defile in the 10th stage; for a distance of ½ a mile defile is only 20' wide and with frequent sharp windings. Here a few hours' work on the road would be necessary to make it easy for laden camels.
- (v) The Jilga and Ghazni rivers, in the 13th stage; fords easy.

Route open throughout the year.

Camping grounds.—For a division at stages 1, 3, 12 and 13 and at Ghazni, for 1 infantry brigade at least at all other stages.

Water.—For a division at stage 3 and at Ghazni, and for an infantry brigade at least at all other stages.

Fuel.—Scarce except at stages 7 and 8, where thorny bushes and low trees are abundant.

Fodder.—Grass for horses plentiful in spring and summer at stages 1 and 2; bhusa procurable at stages 11, 13 and 14, and khasil in March and April at stage 14; camel grazing good at all stages in the spring and autumn, scarce in summer and nil in winter.

Supplies.—Nothing appreciable except at stages 11, 13 and 14, where unground grain to a considerable extent could always be collected.

For supplies, etc., at Ghazni see Route 6, stage 10.

| No. | |
|-------------------|----------|
| | |
| of stage and | DETAILS. |
| total dis- | |
| tance. | |
| | |

At $7\frac{1}{2}$ miles Jani Kats, standing in about 3 acres of cultivation. At $8\frac{1}{2}$ miles the Zawar stream is crossed by an easy ford 1 mile N. of its junction with the Gomal river; a short distance beyond pass Khairodangar, name given to a few wretched huts by the roadside; then leave the river and ascend the hill of Staghai. The road now leaves the valley of the Gomal and leads for $4\frac{1}{2}$ miles over the desolate plain of Sumblabar Raghza, the boundary as it is called between Khorasan and India. Batsul is a collection of graves of Lohanis who have died in the pass. The finest tomb, covered with a marble slab, is that of Alani Khan, Miani.

Camping ground.—For a large force, probably a division, on

the plain.

Water.—For at least 2 infantry brigades, with proportion of divisional troops, from the Ghat river W. of camp and from a good karez.

Fuel.—Scarce.

Fodder.—Grass plentiful; good grazing for horses, mules and camels.

Supplies.—Nil.

2 STAGHAI .. 15 m. Camel road.

30 m.

The road throughout this stage runs N.W. between 2 long ridges running parallel to the road, about $l_{\frac{1}{2}}$ to 2 miles distant on either side.

The road leads over a stony plain, then ascends the Gat Kai by the bed of a rivulet which drains part of the Wazir country and must be large in the rains, as it has cut a bed, 30' wide, in the hard slate. At Gat Kai there are some troublesome large stones. The road then $(3\frac{1}{2}$ miles) runs along the side of a hill. At $6\frac{1}{2}$ miles pass a fine spring (Toda China), then ascend an easy ravine; at 13 miles cross the *Kotal*-i-Staghai (about 5,000').

This is a low ridge crossed by three paths, all equally good.

The descent is easy by a broad road. From the foot of the pass

4

ROUTE No. 7—contd.

At 15 miles Staghai, which is merely a halting place.

Camping ground.—For an infantry brigade at least on a dry plain 300× wide.

Water.—For the above force from a spring in a ravine nearly a mile N. of camp.

Fuel.—Scarce.

Fodder.—Grass abundant, probably at least fair camel grazing.

Supplies.—Nil.

At Staghai Route 7-A, from S. Waziristan joins this route. Route 7-B, alternative route to Gomal Kats, stage 5, branch-

es off.

3 CAMP MARANAI .. 5 m. 4 f. Camel road.

35 m. 4 f.

Leaving Staghai the road turns W. and leads down to the Gomal river reached at $3\frac{1}{2}$ miles, which is crossed there by an easy ford. The road then runs N.W. up the Maranai Algad for 2 miles to camp Maranai. Caravans generally follow the stony bed of the Gomal northwards but the route on the right bank is preferable for troops.

Camping ground.—For a division at Maranai where the

valley opens out.

Water.—Sufficient for a division from the Maranai stream and karezes.

Fuel.—Scarce.

Fodder.—Fair camel grazing.

Supplies.—Nil.

Track turns off N.E. and crosses low hills easy going fit

It is estimated that a Pioneer battalion would take two days to make the three miles through the defile fit for the passage of field artillery.

Camping ground.—For an infantry brigade.

Water.—For the above force from the Zamin Toi.

Fuel.—No details.

Fodder.—Fair camel grazing.

Supplies.—Nil.

5 GOMAL KATS .. 6 m. Camel road. Suitable for wheeled artillery.

54 m.

Road runs nearly N. for 6 miles when the Gomal is reached. Here there are 2 patches of cultivation, which makes a good site for a small camp.

Very little is known about the country in this stage.

Camping ground.—For an infantry brigade near the stream.

Water.—For the above force and more from the stream.

 $Fu_{\ell}l$.—No details.

Fodder.—A little camel grazing.

Supplies.—Nil.

Route 7-B, alternative route from Staghai (stage 2) rejoins this route here.

6 KALA-I-BABAKAR .. 10 m. Camel road. or BABA.

64 m.

Follow the Gomal nearly due W. for one mile, then ascend the left bank and the going is easy as far as Kala-i-Babakar (10 miles). There is a slight ascent in places and a little repair would be required for field artillery. Kala-i-Babakar Khel (Ghilzai) was formerly known as Kharoti Kala. Several small sites suitable for camping grounds can be found along the bedgef the stream and above the site of an old tower.

Gomal rises here; several springs join, near the fort, and flow over a fine small shingle, the stream rapidly increasing till near Utman.

Camping ground.—For 2 infantry brigades with proportion of divisional troops.

Water.—For the above force and more from the stream.

Fuel.—No details.

Folder.—Camel grazing abundant.

Supplies.—Nil.

7 SURGHURGAI .. 6 m. Camel road.

70 m.

From Kala-i-Babakar the track turns due N. and follows a defile, a pebbly reach 400× wide and very straight. The rocks bounding it gradually increase in height from the Kala-i-Babakar onwards.

The country throughout this stage consists of low hills with occasional stony plains. At Surghurgai there is:—

Camping ground.—For an infantry brigade.

Water.—For the above force and more.

Fuel.—Abundant, owing to prevalence of thorny bushes and low trees.

Fodder.—Excellent camel grazing. Supplies.—Nil.

8 SHINSHA .. 12 m. Camel road. General direction N.N.W.

82 m.

For the first 8 miles the track runs among hills covered with bushes; between the 8th and the 10th mile it follows a level ravine 30× or 40× wide, winding among hills that are steep on the N. side and rounded on the S. At the 10th mile the ascent of the Kotal-i-Sarwandi commences; gradient easy; at 10½ miles the crest (7,500') is reached. The descent towards Shinsha

Camping ground.—For one infantry brigade.

Water.—For the above force from a spring.

Fuel.—Abundant owing to prevalence of thorny bushes and low trees.

Fodder.—Grass scanty, fair camel grazing. Supplies.—Nil.

9 KALA-I- .. 13m. 4f. Camel road. General direction N. W.

95 m. 4f.

Soon after leaving Shinsha ascend the Kohnak range by the Sargo pass, a ravine cut by water which winds in easy curves, its width never less than 30, being sometimes 100 yards. Two hours' work would make it an excellent road.

About 3 miles pass two ruined forts above the Sargo defile—one called Ghlo Kala, or thieves' fort.

Then there is a gradual descent to the deserted fields of Khuni Karez (the bloody spring), so called from the contests between two factions to possess it, as it gives a good supply of water. After this the road passes through the cultivated fields of Langar for 2 miles. There are two forts at Langar containing about 80 houses; the larger is 100 yards square; the walls 20' high, 6' thick, are made of mud and flanked by eight towers; the gate is uncovered. This is one of the strongest forts in Katawaz. Inhabitants Taraki Ghilzais.

Camping ground.—For at least one infantry brigade with proportion of divisional troops.

Water.—For the above force and more.

Fuel.—No details.

Fodder.—Fair camel grazing.

Supplies.—Nothing appreciable.

10 DAND .. 15 m. Camel road. General direction N.W., veering more to the N. than in

acres of cultivation. Then for 3 miles through Gazdarra, which is a pass formed by water flowing into Katawaz through the hillocks formed by the Zeru range and the end of Kata Sang. The Gazdarra gradually diminishes in width. In the middle, for about half a mile, the width at bottom is only 20', the hills at the side 200' high, and the windings frequent and sharp. On the Dand side the pass is 30' wide bounded on either side by hills that may be easily crowned. A few small springs issue from the crumbling rocks, but are soon lost. Guns could be dragged through the pass, and a few hours' labour would make it a good road.

There is another and similar pass a mile or two to the N. called the Gazdarra Khurd.

From Kata Sang the road leads over a plain for 4 miles, descending easily to Dand. This is a fort with 30 houses and about 150 acres of cultivation, but there is no water nearer than Dihsai or Nanai—the former a large village of Andari Ghilzais, with 100 houses; the latter a group of four or five forts of Andari and Sulaiman Khel Ghilzais.

Camping ground.—No information; probably sufficient for an infantry brigade at least.

Water.—For the above force would have to be brought in from Dihsai or Nanai, 3 and 2 miles distant respectively.

Fuel.—No information.

Fodder.—Fair camel grazing.

Supplies.—Nothing appreciable.

11 PANNAH .. 13 m. Camel road. Passable for wheeled artillery.

123m, 4f.

The road now leads due N., and this direction is maintained generally to Ghazni. Leaving Dand, a dry water-course is crossed with banks 4' high; the road then leads through some low hillocks and bifurcates—one fork going over the ridge, the

abundant at all of them. Pannah itself is a village inhabited by about 500 Andari Ghilzais.

Among the hillocks here are camps of shepherds and Lohani merchants who emigrate in winter.

Camping ground.—For an infantry brigade at least.

Water.—For the above force and more from a good karez. Fuel.—No information.

Fodder.—A considerable quantity of bhusa should always be available; fair camel grazing.

Supplies.—Unground grain, sufficient for the requirements of an infantry brigade for about one week, could normally be collected from the surrounding villages.

12 JOGA .. 10m. 4f. Camel road, easily convertible to a cart road.

134 m.

Road leads over an open plain in the Shilghar district which is entered at about 2 miles. At $10\frac{1}{2}$ miles Joga consisting of a cluster of forts.

Camping ground.—For a division probably, on the large open plain.

Water.—No information, but there is probably sufficient water for an infantry brigade at least. The Jilga river which could probably supply the requirements of a division, is shown on the map as flowing 3 miles N. of Joga.

Fuel.—No details.

Fodder.—Fair camel grazing.

Supplies.—Probably nothing appreciable.

13 NANI .. 13 m.6f. Camel road, easily convertible to a cart road.

147m. 6f.

Road continues N. over the Shilghar plain. At 4 and 7½ miles the Jilga and Ghazni rivers are forded respectively; the fords

Camping ground.—For a division on the open, sandy plain. Water.—For the above force from several springs and karezes.

Fuel.—Scarce.

Fodder.—Grass plentiful; an appreciable quantity of bhusa should normally be available; camel grazing excellent.

Supplies.—Unground grain to some considerable extent should always be procurable from the surrounding villages.

A large number of transport camels can be obtained in the vicinity.

At Nani this route joins the main through route from Kabul to Kandahar (Route 15).

14 GHAZNI .. 14 m. 2f. Metalled cart road, (7,279'). 24'.

This stage is identical with stage 8 of Route 15 which, however, in that route is described from Ghazni. General direction N.E. At $2\frac{1}{4}$ miles pass the Kizilbash village of Karabagh on the E. of the road and at $3\frac{1}{4}$ miles the Andari villages of Kala-i-Fakir and Kala-i-Sher about 1 mile E. of the road. At $5\frac{1}{4}$ miles Noghai on the E. of the road and a group of Ghilzai villages known as Bagla, 1 mile W. of the road, beyond which separated by a low range of hills is the district of Waghaz, beyond which again is the Hazara district of Kakrak.

At 7½ miles a halting place known as Ispandi where there would be room for 1 or 2 infantry brigades to encamp if necessary. The road to Ispandi to this point leads over an open plain, but onwards to about mile 11 it is flanked on the W. by a low range of hills 1½ miles distant, and on the E. by hills considerably farther off; the country in between is well cultivated and studded with villages. At 11 miles a garden called Chehil Bacha Gam beyond which the sandy bed of a river about 200 yards broad is crossed. At 14½ miles Ghazni is

ROUTE NO. 7-A.

OBA SAR TO STAGHAI.

15 miles.

1 stage.

Authority.—Native surveyor, 1904.

Epitome.

General description.—This is an important route used by Powindahs, when travelling between India and Mukur or Ghazni, who sometimes prefer to pass through Wana instead of viâ Domandi (Route 7).

It connects at Oba Sar with Routes in Waziristan, Route 73.

Road.—Camel road which could be made practicable for wheeled artillery with a little labour. The following obstacles are encountered: (i) The Khand pass (5,500'); descent on W. face rather difficult and a little labour necessary to make it passable for field artillery.

(ii) Staghai pass (5,000'); ascent and descent easy.

Route open throughout the year.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

15 m.

There is no intermediate stage.

wheeled artillery with

a little labour.

| No. of stage and total distance. | | | DETAILS. | |
|----------------------------------|---------|----|-----------------------------|----------------------------|
| 1 | STAGHAI | •• | 15 m.—Camel road made pa | l. Could be assable for |

ROUTE No. 7-A—concld.

make the path passable for field artillery. At 6 miles the Tirkha Oba stream is crossed, and the Zowara Algad reached at 11 miles. The Zowara stream forms no obstacle, the water being only a few inches deep, but has a rapid current when in flood; floods usually subside rapidly; bed rocky.

Ascend from the Zowara up a small algad to the N. W., and reach the Staghai kotal (5,000') at 13 miles. Road then follows Route 7 to Staghai, which is merely a halting place and is reached at 15 miles.

 $egin{array}{c} Camping\ ground. \ \hline Water. \ \hline Fuel. \ \hline Fodder. \ \hline Supplies. \ \hline \end{array} egin{array}{c} Vide\ {
m Route}\ 7,\ {
m stage}\ 2. \end{array}$

ROUTE NO. 7-B.

STAGHAI TO GOMAL KATS.

Viâ the Gomal river.

31 miles.

3 stages.

Authority.—Broadfoot, 1839.

General description.—An alternative route to stages 3 to 5 of the main through route (route 7); it is often preferred by Powindahs, but it is not so suitable for troops as it follows the river bed and the stream is constantly forded.

Road.—Camel road throughout. No obstacles encountered. Route open throughout the year.

Camping grounds.—No details regarding stage 1: for

| total dis- tance. | |
|------------------------|-----------|
| 1 AHMADZAI 10m. 4f. Ca | mel road. |
| KACH. | |

General direction N.W. For 3 miles the road follows a level ravine 40^{\times} wide, bounded by low rocks, or hillocks, passable for cavalry, and then enters the bed of the Gomal, which winds so much that crossing is very frequent. The breadth of water here is 20' and the depth 1'. Pioneers would have some work in clearing away the stones of the Gomal, but there is no real difficulty for guns.

At $10\frac{1}{2}$ miles Ahmadzai Kach (Kats), merely a halting place. Camping ground.—No information.

Water.—For at least 2 infantry brigades with proportion of divisional troops, from the Gomal.

Fuel.—No details.

Fodder.—Fair camel grazing.

Supplies.—Nil.

2 SARMARGHO 10m, 4f. Camel road. KACH.

21 m.

Road continues N.W. The Gomal still winds so much that it has to be crossed as often as seven times in a mile. Men on foot can climb the hills the whole march and thus avoid this constant crossing. It is never less than 30× wide. The shingle is composed of large stones, some of them a foot in diameter, but there is no serious obstacle for guns.

At 4 miles is Mamatsalai, a great white rock in the centre of the pass and at 9 miles the salt rivulet of Ab-i-Talkh enters the stream.

At 101 wiles Commonwha which is a halting place 500X wide

ROUTE No. 7-B—concld.

3 GOMAL KATS 10 m.—Camel road.

31 m.

Road still continues N. W. Following the Gomal, at 6 miles the Dwa (second) Gomal makes its appearance from a narrow ravine. This stream rises in a hill called Durzlei near Paltu, and flows through the Kharoti country between the Kohnak and Wazir ranges. The Gomal valley, above its junction with the Dwa Gomal, is very confined, the curves become more frequent. Here the main through Route 7 is joined.

 $egin{array}{c} Camping \ ground.-- \ Water.-- \ Fuel.--- \ Fodder.--- \ Supplies.-- \end{array}
ightarrow Vide$

Vide Route 7, stage 5.

ROUTE NO. 7-C.

KALA-I-BABAKAR TO KALA SARKARI (MUKUR DISTRICT).

64 miles.

5 stages.

Authority.—Native surveyor, 1904.

Epitome.

General description.—Part of the direct route from India to the Mukur district viâ the Gomal valley. It is also a connecting route between the main through route from the Gomal valley to Ghazni (Route 7), and the Kabul-Kandahar main road (Route 15).

Road.—Camel road throughout and with a little labour (most needed in the first stage) could be made passable for wheeled artillery.

The following obstacles are encountered:—

(i) Sarwand kotal 1,500' above Babakar, in the 1st stage; no difficulty.

• 11 411 1

ROUTE No. 7-C-contd.

Water.—For a division at stage: 2 and 3, for an infantry brigade at least, at all other intermediate stages.

Fuel.—Scarce throughout.

Fodder.—In spring, khasil for 1 cavalry regiment daily at Kala Sarkari (stage 5); bhusa at all stages except Jaffar (1st) in varying quantities; probably fair camel grazing throughout, being a Powind th route.

Supplies.—About 500 maunds unground grain at stage 2, and about 1,000 maunds at stages 4 and 5.

| No. of stage and total dis- | | | DETAILS. | , | |
|-----------------------------|--------|-----|----------|--------------------------|---------------|
| 1 9 m. | JAFFAR | • • | | road. assable ery. | Easily for |

From Kala-i-Babakar the track is called Sragurghai* (or the the red rushes road) and leads N.W. along the bed of the Gomal. Going rough. Several days' work would be required before field artillery could pass. The track ascends over the Sarwand range by the Jaffar or Sarwand kotal (6 miles) which is 1,500' above Babakar but not difficult. Two miles beyond the kotal Jaffar is reached. Jaffar is in reality a district as this name is given to several villages situated along the western side of the Sarwand range. The Jaffar near the camp is a Sulaiman Khel village (60 houses).

Camping ground.—For an infantry brigade.

Water.—For the above force from springs, but tanks would have to be dug for watering animals.

Fuel.—No details.

Fodder.—Fair camel grazing.

Supplies.—Nil.

Note.—(i) From Kala-i-Babakar a route goes direct to Ghazni viá Birlak

ROUTE No. 7-C-contd.

2 ARZBEGI .. 15 m. Camel road. General direction W.

24 m.

The track for the first 3 miles follows a gentle descent where a little improvement for field artillery would be required. After that, easy going across country to Jumjuma (14 miles).

Jumjuma, the first habitation reached, is a small village of Sulaiman Khel Ghilzais. There are three karezes for cultivation. Sufficient water for a brigade. About 150 maunds bhusa obtainable after harvest.

Road good from Jumjuma to Arzbegi (15 miles). The village of Arzbegi consists of about 200 households of Sulaiman Khel Ghilzais and Nasirs.

Camping ground.—For a division probably on the open plain. Water.—For 2 or 3 infantry brigades from several karezes. Fuel.—Scarce.

Fodder.—About 500 maunds bhusa normally available.

Supplies.—About 500 maunds unground grain could be collected from the Arzbegi villages.

3 DILA (ADIN 15 m. Camel road. KHEL.)

39 m.

Follow track nearly N.W. across open country. At 1 mile enter dry sandy nala (Paltu river on map) and follow this for 1,000×. Field artillery can avoid the nala by keeping to the N. Beyond this point the track presents no difficulties, and leads across a waterless desert. The Palturiver does not exist as a running stream as shown on some maps.

At Dila there are three villages of Adin Khel Ghilzais about 15 houses in all. There are three kurezes and water is led on to the cultivation from a stream coming from Aoband.

Camping ground.—For a division probably on the open plain.

GHILAN .. 15 m. Camel road. 4

55 m.

The track continues W. for 3 miles to Zara Kala (250 houses), belonging to the Na Khel, Taraki Ghilzais; 4 walled village with four watch towers, and 1 gateway facing E.; surrounded by cultivation; water from 2 karezes.

Track then turns due W. across open country, which extends as far as the Kargana range reached at about 11 miles and which is crossed by the Chuola (Chola) pass (summit at 13 miles); road for 2 miles in the pass requires to be cleared of boulders.

At 15 miles Ghilan where cultivation is once more met with; inhabitants Tarakis with a few Duranis.

Camping ground.—No information; probably sufficient for 2 infantry brigades with proportion of divisional troops.

Water.—For the above force from springs and karezes.

Fuel.—No information.

Fodder.—About 1,000 maunds bhusa procurable.

Supplies.—About 1,000 maunds unground grain normally available.

At Ghilan the main through route from Zhob to Mukur Route 8 is joined

Note.—Alternative roads from Dila towards the Mukur district—

1. North of the above track vid Kargana. This coute has not been reconnoitred, but is said to be more difficult than the Chola route.

1. South-west by a track called the Kurram road to Dand, 17 miles in the Shahjui direction. This has been reconnoited, and found easy for all arms.

It passes the north end of the Ab-i-Istada salt lake.

There is also a track leading along the east side of the Ab-i-Istada to Munurai, 19 miles, and to Malikdin, 19 miles. From Malikdin the track leads to Maruf, for all arms.

KALA SAR- 9 m. Camel road.

KARI (Mukur

District.) 64 m.

Road leads N. W. across cultivated country and past Chiles willowers word come throughout

ROUTE No. 7-C-concld.

At 4 miles Route 8-B is crossed.

At $6\frac{1}{2}$ miles Kala Mirza on the right (E.) of the road. Thereafter the following Chilzai villages are passed in t rn all E. of the road, Merdil, Kamat, Manak and Yarkoh.

At 9 miles Kala Sarkari, where the main through route Kabul-Kandahar (Route 15) is joined.

Camping ground.—On a small plain E. of the road near the source of the Tarnak; it appears probable that there would be room for 2 infantry brigades with proportion of divisional troops on this plain.

Water.—For the above force from an excellent spring 1 mile W. of the main road; animals would be watered at the many water channels.

Fuel.—Scarce.

Fodder.—In March and April khasil for horses of one cavalry regiment at least daily; bhusa could be collected to a considerable extent from villages in vicinity. Good camel grazing except in winter.

Supplies.—About 1,000 maunds unground grain should normally be procurable from the surrounding villages.

Cattle, sheep and goats are said to be kept in large numbers but the Mukur villages in 1880 were all deserted and neither supplies nor livestock were obtained, except such as were buried or otherwise hidden and afterwards found by foraging parties.

Near camp is a burial ground reputed to be a haunt of thieves.

ROUTE NO. 7-D.

DILA (ADIN KHEL) TO PANNAH.

40 miles. 3 stages.

Authority.—Benn from native information, 1894.

ROUTE No. 7-D-contd.

Road.—Camel road throughout easily convertible to a cart road. No obstacles are met with. Route open throughout the year.

Camping grounds.—For 2 infantry brigades with proportion of divisional troops at stage 1 and for half that force at stage 2.

Water.—Sufficient for the troops for which camping space is available at both intermediate stages.

Fuel.—Scarce throughout.

Fodder.—About 100 maunds bhusa at the first stage; fair camel grazing throughout.

Supplies.—About 100 maunds unground grain at the first stage: nothing else at intermediate stages.

| No. of stage and total dis- tance. | | DETAIL | S. |
|------------------------------------|--------------------|--------|--|
| 1 | SHAH GUL: KHEL. | 13 m. | Camel road, easily convertible to a cart |
| 13 m. | | | road. |

Leaving Dila, the road follows Route 7-C for 3 miles to Zara Kala, where it leaves that route and runs due N. to the end of the stage. At 6 miles the Zhera (Zara) hills are reached, through which the road winds easily for about a mile and merges on to the Shah Gul plain beyond, on which are scattered several villages, surrounded by their own cultivation, belonging to the Badin Khel sections of the Taraki Ghilzais; water obtained from karezes.

Camping ground.—For at least 2 infantry brigades with proportion of divisional troops on the plain.

Water.—For the above force from several karezes.

Fuel.—Scarce.

Fodder.—100 maunds bhusa normally available; fair camel

ROUTE No. 7-D—concld.

Track continues, general direction N., across an open plain, on which are scattered several Taraki villages as in the last stage. From 7 miles to the end of the stage the road skirts the foot of some low hills which flank it on the E. At 12 miles Nanai.

Camping ground.—For at least one infantry brigade with proportion of divisional troops.

Water.—No information, but the country here abounds with karezes and water for the above force could therefore easily be procured from a short distance.

Fuel.—Scarce.

Fodder.—Fair camel grazing. Supplies.—Nothing appreciable.

3 PANNAH .. 15 m. Camel road. Easily convertible to a cart road.

Road now runs N.E. across the plain which is studded with villages surrounded by much cultivation; water from karezes. At 15 miles Pannah, stage 11 of Route 7, the main through route from the Gomal valley to Ghazni.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 7, stage 11.

ROUTE NO. 8.

TARAKI TIRWAH TO KALA SARKARI (MUKUR DISTRICT).

Viâ the Zangala pass.

105 miles.

10 stages.

route from Zhob to Ghazni. It connects at Taraki Tirwah with Routes in Northern Baluchistan, Route 32, to Kamardin Karez, which is only $13\frac{1}{2}$ miles distant and through which many kafila routes pass, notably the camel road to Fort Sandeman.

Road.—Camel road throughout. In the 7th stage the road runs parallel to the western shore of the Ab-i-Istada Lake 1½ miles distant. The following obstacles are met with.

- (i) The Wazikhwa range in the 4th stage, which is crossed by a difficult pass.
- (ii) The Zangala pass in the 5th stage; no difficulty.
- (iii) The Tarnak river, forded in the last stage; no difficulty.

Route open throughout the year.

Camping ground.—For a division at stages 8 and 10, and for at least 1 infantry brigade with proportion of divisional troops at all other stages.

Water.—For a division at stage 10, and for at least 1 infantry brigade with proportion of divisional troops at all other stages.

Fuel.—Scarce throughout.

Fodder.—At stages 2 and 10 khasil in March and April daily for horses of a cavalry regiment; bhusa at stages 1, 2, 8, 9 and 10 in varying quantities; good camel grazing throughout except in winter.

Supplies.—Unground grain to an appreciable extent at stages 1, 2, 8, 9 and 10. Cattle, cows and goats at stage 10.

| No. of stage and total dis- tance. | | DETAILS. | |
|------------------------------------|---------------------------|----------|-------------|
| 1 11 m. | KHAZAN KAREZ (6,875'). | . 11 m. | Camel road. |

The direction now veers gradually to N.W. At 8 miles Khwaja Muhammad Kala on the right of the road; this belongs to the Sulaiman Khels, and is situated on the right bank of the Kafir Sinzala nala. The fort of Dost Muhammad Kala is about 1 mile due N. of this; at 10 miles the Kafir Sinzala nala is crossed, and the Taraki Ghilzai cultivated lands entered. At 11 miles is Khazan Karez or, as it appears to be more generally known, Bakhtawar Karez a walled village, and a few mud huts, belonging to the Taraki Ghilzais.

Camping ground.—For at least 2 infantry brigades with proportion of divisional troops.

Water.—For the above force and more from several karezes. Fuel.—Scarce.

Fodder.—No grass; bhusa to a moderate extent from the adjacent villages; camel grazing good except in winter.

Supplies.—Probably 200 to 300 maunds unground grain would normally be available.

2 WAZIKHWA .. 15 m. Camel road. (MARJAN). 26 m.

Leaving Khazan Karez the road leads due N. across the Kuch Khwara plain.

At 3½ miles enter a patch of Sulaiman Khel cultivation, called Sarai Karez which extends for about 1 mile; at 5 miles cross the Isar Narai, ascent and descent easy. At 6 miles the road crosses the Surkanrai nala, and then continues N.W. across open ground. At 8 miles a low range of hills is passed on the left, called Nahar. Here there are some Sulaiman Khel villages and a halting-place; water from the Nahar nala which is good, but is liable to dry up in summer; in the winter there is always a plentiful supply. From here the Wazikhwa plain stretches away to the N. and the track crosses this through cultivation

Fodder.—No grass; khasil for the horses of a cavalry regiment daily during March and April, about 200 to 300 maunds thusa should be usually available; camel grazing good except in winter.

Supplies.—From 200 to 300 maunds unground grain should be normally procurable from the adjacent villages.

3 SHAHDAK 10 m. Camel road. (SHAHIDHAK)

The road now enters the Taraki Ghilzai country and runs nearly due W. across a rugged country; several difficult ascents and descents have to be made in this march and no cultivation is to be seen.

Camping ground.—For at least 1 infantry brigade with proportion of divisional troops.

Water.—For the above force and more from several springs. Fuel.—Scarce.

Fodder.—Fair camel grazing. Supplies.—Nil.

4 ZANGALA .. 12 m. Camel road.

48 m.

General direction N. W. through mountainous county. About 8 miles a difficult pass over the Wazikhwa range has to be crossed. The Tarakis in this vicinity are all shepherds and there is no cultivation.

Camping ground.—No information; there is probably room for an infantry brigade with proportion of divisional troops.

Water.—Probably for the above force from springs.

Fuel.—Scarce.

Fodder.—Good camel grazing (except in winter).

the 11th mile the country opens out somewhat, and at 12 miles a group of large, open villages belonging to the Tokhi Ghilzais is reached. Villages are known as Bara Khel and the halting place near as Tarkar-ka-Sir.

Camping ground.—For at least 2 infantry brigades with proportion of divisional troops.

Water.—For the above force from karezes and springs. Fuel.—Scarce.

Fodder.—Good camel grazing except in winter. Supplies.—Probably nothing appreciable.

6 KALAKHAN .. 9 m. Camel road.

69 m.

Road, general direction N., runs through a defile for the greater part of this march. At 9 miles on the W. of the road the Deh-i-Kazi villages belonging to the Akazi section of the Tarakis. Opposite these villages on the right (E.) of the road is the halting place known as Kala Khan. The S.W. corner of the Ab-i-Istada Lake is $1\frac{1}{2}$ miles due E. of Kala Khan.

Camping ground.—For at least one infantry brigade with proportion of divisional troops.

Water.—For the above force, and more, from karezes and the Lora river whose source is to be found near by, emanating from the rivulets percolating from the Ab-i-Istada.

Fuel.—No information.

Fodder.—Fair camel grazing except in winter. Supplies.—Nothing appreciable.

7 UTKAN .. 9 m. Camel road.

78 m.

No large amount of water runs out of the lake but its waters percolate through the ground in streams which unite and form the Arghastan Lora. Surrounding country very barren and dreary and there are scarcely any inhabitants. At 9 miles Utkan, near which there are several Taraki villages.

Camping ground.—For at least 1 infantry brigade with pro-

portion of divisional troops.

Water.—For the above force from wells, water brackish.

Fuel.—Scarce.

Fodder.—Fair camel grazing except in winter.

Supplies.—Nothing appreciable.

8 DAND

.. 9 m. Camel road.

87 m.

Road continues N. across a large, open plain, partially cultivated; at 6 miles the road is crossed by a camel track running E. and W. from Dila (Adin Khel) stage 3 of Route 7-C, to join the main Kabul-Kandahar road, Route 15, which is met about 6 miles N. of Shahjui. At 9 miles Dand.

Camping ground.—There would probably be room for a divi-

sion on the open plain.

Water.—For one infantry brigade at least from karezes.

Fuel.—Scarce.

Fodder.—About 100 maunds bhusa should always be procurable from the adjacent villages; fair camel grazing except in winter.

Supplies.—About 100 maunds unground grain could normally be collected.

9 GHILAN

9 m. Camel road.

96 m.

Fodder.—About 200 to 300 maunds bhusa procurable; good camel grazing.

Supplies.—About 200 to 300 maunds unground grain normally available.

At Ghilan, Route 7-C, from Kala-i-Babakar, to Mukur joins this route.

10 KALA SARKARI 9 m. Camel road.

------- (MUKUR 105 m. DISTRICT)

(6,550').

Road leads N.W. across cultivated country and past numerous Ghilzai villages; road easy throughout. At 2 miles the Tarnak river, whose course is marked by a line of willow trees, is forded; river bed most tortuous, serpentining across the valley; lively, noisy current; stream here normally 20' to 30' wide, about 1' deep, but as the water is frequently led off in canals for irrigation, stream is much reduced and in the summer is almost entirely exhausted.

At $6\frac{1}{2}$ miles Kala Mirza on the right (E.) of the road. Thereafter the following Ghilzai villages are passed in turn, all E. of the road, Merdil, Kamat, Manak, and Yarkoh. At 9 miles Kala Sarkari where the main through Kabul-Kandahar route (Route 15) is joined.

Camping ground.—On a small plain E. of the road; it appears probable that there would be room for a division.

Water.—For the above force from an excellent spring $\frac{1}{4}$ mile W. of the main road; animals would be watered at the many water channels.

Fuel.—Scarce.

Fodder.—In March and April khasil daily for horses of one cavalry regiment at least; bhusa to a considerable extent; probably at least 2,000 maunds could be collected from the villages in the vicinity; good camel grazing except in winter.

ROUTE NO. 8-A.

WAZIKHWA TO MASHAKI.

88 miles.

8 stages.

Authority.—Benn from native information, 1894.

Epitome.

General description.—This route connects the two through Routes 8 and 15 and is part of the main kafila route from Zhob to Ghazni. Information regarding it, however, is not very definite and distances are only approximate.

Road.—Camel road throughout. Obstacles: (i) Shinkai kotal

in the 1st stage; no difficulty.

(ii) The Ghazni river in the last stage: crossed by an easy ford.

Route open throughout the year.

Camping grounds.—Information is vague; it is probable there is camping space for a division at all intermediate stages except at stages 1 and 5, where there is room for at least 1 infantry brigade with proportion of divisional troops.

Water.—For a division probably at stage 4, and for at least 1 infantry brigade with proportion of divisional troops at the

other intermediate stages.

Fuel.—Procurable at stage 3; practically no information on this point as regards other stages.

Fodder.—Bhusa obtainable at stages 2, 3, 4, 6 and 7; camel grazing good throughout, except in winter.

Supplies.—Unground grain to an appreciable extent obtainable at stages 3, 6 and 7.

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| total dis- | | DETAILS. | |
| tance. | | | |
| 7 | NIA ZA CITTALA | 15 | C1 |

NIAZA CHINA .. 15 m. Camel road.

ascent and descent easy. At about 15 miles Niaza China, a collection of Sulaiman Khel hamlets.

Camping ground.—Probably for at least one infantry brigade with proportion of divisional troops on the plain.

Water.—No information.

Fuel.—No information.

Fodder-Good camel grazing except in winter.

Supplies.—No information.

2 MUNARI .. 9 m. Camel rooad.

24 m.

Road now leads N. W. At 2 miles the Gwashta *Sar is passed and at 4 miles the small fort of Zmak among low hills where there is room to encamp an infantry brigade, with sufficient water from several springs. At about 9 miles a collection of 6 villages on the Munari plain; inhabitants Nassu Khel, Sulaiman Khel.

Camping ground.—For a division on the open plain.

Water.—For at least 2 infantry brigades from several karezes. Fuel.—Scarce.

Folder.—No grass; a few hundred maunds bhusa usually procurable; good camel grazing except in winter.

Supplies.—Nothing appreciable.

3 JAMBA .. 8 m. Camel road.

32 m.

Road continues N. W. across an open plain, locally known as the Shiniya; road good throughout this march. At 8 miles a halting place known as Jamba in the vicinity of which are 6 villages belonging to the Adin Khel section of the Sulaiman Khel.

Camping ground.—For a division if necessary on the open plain.

Fodder.—A few hundred maunds bhusa should normally be procurable; good camel grazing except in winter.

Supplies.—It should always be possible to collect a few hundred maunds unground grain from the surrounding villages.

DILA (ADIN .. 10 m. Camel road. KHEL).

42 m.

Road continues N.W. across an open plain. At. 5 miles, group of hamlets known as Nassu Khel, being probably inhabited by that section of the Sulaiman Khel.

At Nassu Khel Route 7-C, coming from Kila-i-Babakar is only I mile distant to the E. on the plains; thereafter the 2 routes gradually converge, crossing at Dila at the end of the stage, at 10 miles.

Camping ground.—For a division probably on the plain from karezes and the Aoband stream.

Water.—For a division.

Fuel.—Scarce.

Fodder.—A few hundred maunds bhusa normally available; good camel grazing except in winter.

Supplies.—Nil.

SAR KALA KAREZ.

12 m. Camel road.

54 m.

Road follows Route 7-C, for 3 miles to Zara Kala (250 houses), at which point that route branches off W. to meet the Kabul-Kandahar road, and the present route continues N.W. At 6 miles the Zhera (Zara) range is reached, the road winding for some 2 miles through low hills; no difficulty; road continues across an open plain. At 12 miles Sar Kala Karez.

Camping ground.—No information; it appears probable that there would be sufficient room for at least one infantry brigade with proportion of divisional troops.

ROUTE No. 8-A—concld.

Road leads nearly due N. over an open plain. At 10 miles the Taraki village of Aoband (50 houses).

Camping ground.—For a division probably on the plain.

Water.—For at least 1 infantry brigade with proportion of divisional troops from karezes.

Fuel.—Scarce.

Fodder.—About 100 maunds bhusa normally available; good camel grazing except in winter.

Supplies - About 100 maunds unground grain procurable.

7 BACHEGI .. 12 m. Camel road.

76 m.

Road runs N. across the open Shilghar plain, on which are scattered several Andari Ghilzai villages. At 12 miles Bachegi.

Camping ground.—For a division probably on the plain.

Water.—For at least 2 infantry brigades with proportion of divisional troops from karezes: animals could be watered from the Ghazni river about 1 mile W. of camp.

Fuel.—No information.

Fodder.—A few hundred maunds bhusa should be procurable; good camel grazing except in winter.

Supplies.—A few hundred maunds unground grain normally available.

8 MASHAKI .. 12 m. Camel road. (6,900').

88 m.

Road now leads N. E. across the plain and runs roughly parallel to the Ghazni river, whose left bank remains about a mile distant. At 7 miles the road bends nearly due N. and the Ghazni river is crossed by an easy ford, the road then continuing N. to Mashaki reached at 12 miles. Mashaki consists of a group of 5. Andari Ghilzai villages, each surrounded

ROUTE NO. 8-B.

BARA KHEL TO MASHAKI.

70 miles.

6 stages.

Authority.—1st Afghan war records, 1839.

Epitome.

General description.—A connecting route between the two through Routes 8 and 15; the first 4 stages of this route also form an alternative to the last 4 stages of Route 8, with which it runs roughly parallel. This route was followed by the Bombay column accompanied by field artillery in 1839.

Road.—Camel road passable for wheeled artillery throughout. No obstacles are encountered; route open throughout the year.

Camping grounds.—Probably for at least 1 infantry brigade with proportion of divisional troops at all intermediate stages.

Water.—For a division at stages 3 and 5 and for an infantry brigade with proportion of divisional troops at all other intermediate stages.

Fuel.—Practically no information.

Fodder.—Bhusa at stages 2, 3, 5 and 6; good camel grazing except in winter.

Supplies.—A few hundred maunds unground grain at stages 2, 3, 5 and 6.

| No. of stage and total dis- tance. | | DETAILS. | |
|------------------------------------|------------------|----------|---|
| 1 13 m. | MANSUR KAREZ. | 13 m. | Camel road; passable for wheeled artillery. |

Leaving Bara Khel the road leads northwards over a plain for 5 or 6 miles, and then N. W. across the hills S. of the Ab-i-Istada, road practicable for wheeled artillery. The

Camping ground.—For at least 1 infantry brigade with proportion of divisional troops on the shores of the lake.

Water.—For the above force from a stream of clear water running into the lake.

Fuel.—Probably ni'.

Fodder.—Probably fair camel grazing except in winter.

Supplies.—Nil.

TAZ (TAJH) .. 12 m. Camel road passable (Camp 2 miles for wheeled artillery.

North of—)

Road now runs N.W. over undulating country. At $7\frac{1}{2}$ miles a large, dry ravine is crossed; no difficulty. At 8 miles cross Route 8 which here runs nearly due N. and S. in its 8th stage. At 10 miles Taz, a fort and village about 2 miles W. of the main road (Route 8).

Taz is situated about the centre of a wide gap in the range which bounds the Tarnak valley on the S. E. About 2 miles N. of Taz is the site of the camp used by the Bombay column in 1839.

Camping ground.—For at least 1 infantry brigade with proportion of divisional troops.

Water.—For the above force from an irrigation channel.

Fuel.—No information.

Fodder.—A few hundred maunds bhusa could be collected in the vicinity; good camel grazing except in winter.

Supplies.—A few hundred maunds unground grain normally procurable.

3 MUHAMMAD KALA 12 m. Camel road passable for wheeled artillery. 37 m. (6,550').

The Mukur district is now entered. The road turns N.E. and re-crosses Route 8 at about 3 miles and runs roughly alongside it till the Tarnak river is reached at 5 miles. Here Route 8 leads across the river and then heads due

and Karai Kala at 9 miles. At 12 miles, Muhammad Kala, identifiable with the Islam Kala, where the Bombay column encamped. The main Kabul-Kandahar road (Route 15) is only 6 miles distant here to the W. running under the hills on the opposite side of the valley.

Camping ground.—For at least 2 infantry brigades with

proportion of divisional troops.

Water.—For a division from the Tarnak river.

Fuel.—No information.

Fodder.—Bhusa to an appreciable extent could be collected from the neighbouring villages. Good camel grazing except in winter.

Supplies.—An appreciable quantity of unground grain could be collected from the villages in this vicinity.

4 ATAK (HOTAK) 13 m. Camel road passable for wheeled artillery.

50 m.

Road continues N. E. along the left bank of the Tarnak river. At 6 miles pass through the Taraki village of Badam Kechar and between the 7th and 8th miles pass the following villages in turn, Khwajazai, Piari and Solkhel. A range of low hills flanks the road now on the W. and there is a slight ascent onwards to the end of the stage.

At 13 miles Atak, a large fort and group of villages in the Jamrud district which is entered here; inhabitants Popalzai Duranis. Karez-i-Oba on the Kabul-Kandahar road (Route 15) is about 4 miles S.W. of Atak. Atak is practically on the

watershed of the Tarnak river.

Camping ground.—No information.

Water.—Probably for one infantry brigade, only, from an irrigation stream.

Fuel.—No information.

Fodder.—Good camel grazing except in winter.

Gundies Nothing appropriable

ROUTE No. 8-B—concld.

parallel, about 3 miles distant on the W. At 10 miles Bakshi Kala, inhabitants Tokhi and Andari Ghilzais.

Camping ground.—No information.

Water.—For a division if necessary from the Ghazni river.

Fuel.—No information.

Fodder.—A few hundred maunds bhusa procurable; good camel grazing except in winter.

Supplies.—A few hundred maunds unground grain could be

collected.

6 MASHAKI .. 10 m. Camel road; passable for wheeled artillery.
70 m.

Excellent road in the same direction (N.E.) over open

and populated country.

Villages are passed both on and near the road, as well as Lohani camps in summer. Several watercourses, of no great difficulty, are crossed; they run from N.E. to S.W. and join the Ghazni river, which flows into the Ab-i-Istada. Mashaki is a large group of villages, inhabitants Andari Ghilzais. The plain here is extensively cultivated.

The Kandahar road is joined N. of the Mashaki villages.

Vater.—

Vater.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 15, stage 9.

ROUTE NO. 9.

MIZAN TO KALAT-I-GHILZAI.

Viâ the Purshi pass.

95 miles.

9 stages.

Authority.—Benn from native information, 1894.

Road.—Camel road throughout; would probably easily be made passable for wheeled artillery as the greater portion of the route traverses open plains.

The following obstacles are encountered:—

(i) The Zhait and Lora streams in the 4th and 7th stages, respectively; both crossed by easy fords.

(ii) The Purshi or Surkai pass in the 7th stage; ascent and

descent easy.

(iii) The Tarnak river in the last stage; temporarily unfordable after heavy rain.

Route open throughout the year.

Camping grounds.—Probably for a division at all stages.

Water.—For a division at stages 1 and 9 and for an infantry brigade at least at all other stages:

Fuel.—Scarce throughout the route.

Fodder.—Grass at stage 1 only; khasil at stage 9 for horses of a cavalry brigade daily during March and April; bhusa to a moderate extent at stages 2, 4, 5, 7 and 8 and 3,000 to 5,000 maunds at stage 9; good camel grazing throughout except in winter.

Supplies.—Limited supply of unground grain at stages 2, 4, 5, 7 and 8; all supplies for a division for 1 or 2 weeks at stage 9.

| No. of stage and total dis- tance. | | DETAILS. | |
|------------------------------------|------------|------------------|---|
| 1 | KAFIR CHAH | 9 m. Camel road. | - |

9 m.

The road leaves Mizan (6,825'), direction S. W. down the Multanai nala which joins the Kand river at 1 mile. The track keeps to the river bed, being confined on the left by the low hills of the Multanai range for 2 miles, when the hills on the left cease and the country on both sides of the road is over

track skirts the southern slopes of this range for another mile, and then meets the Tirkah nala which it follows from this point in a due northerly direction until the Kafir Chah springs are met at 9 miles. As seen from the hills above Spinkai Tsahan, Kafir Chah appeared to be a wide grassy plain. The place belongs to the Hotak Ghilzais though the Mandarzai Kakars also graze their flocks on these plains.

Camping ground.—For a division on the grassy plain.

Water.—Probably sufficient for the above force from 5 or 6 excellent springs.

Fuel.—Scarce; only a limited supply of scrub being procurable.

Fodder.—Grass for about one week for the horses of a cavalry brigade, could be cheeled from the grassy plain, except in winter; bhusa to no appreciable extent; a limited supply is kept by the nomad shepherds in the neighbourhood, which they will not part with; camel grazing in abundance except in winter.

Supplies.—Nil.

2 SARGARI .. 8 m. Camel road; suitable for wheeled artillery.

17 m.

Road now leads across the Shahidan plain, direction N.W. At about 5 miles road winds through some low hills and at 8 miles Sargari which lies at the foot of the Shua Ghar range. Sargari, large walled village surrounded by much cultivation, inhabitants Tokhi Ghilzais.

Camping ground.—Probably for a division.

Water.—Sufficient for at least 1 infantry brigade from springs.

Fuel.—Scarce.

Fodder.—Bhusa to a moderate extent; camel grazing good except in winter.

Supplies.—A few hundred maunds unground grain normally

Camping ground.—Probably for a division at least.

Water.—Probably for at least 1 infantry brigade from springs in the bed of the Darwaza nala.

Fuel.—No information.

Fodder.—Good camel grazing except in winter.

Supplies.—Nil.

WUCHA 10 m. Camel road suitable for wheeled artillery.

35 m.

Road continues N.W. across an open plain. At 4 miles the Zhait stream is crossed by an easy ford; thence road winds through low hills and emerges once more on to a plain. At 10 miles the halting place known as Wucha Murgha.

Camping ground.—Probably for a division at least.

Water.—For at least 1 infantry brigade with proportion of divisional troops.

Fuel.—Scarce.

Fodder.—No grass; bhusa obtainable to a limited extent; good camel grazing except in winter.

Supplies.—A few hundred maunds unground grain normally procurable here.

5 LAWARGAI .. 10 m. Camel road suitable for wheeled artillery.

Road runs nearly due W. for about 6 miles and then veers gradually to the N. W. traversing an open plain throughout this march. At 10 miles Lawargai in the vicinity of which there are several Tokhi Ghilzai villages, also an old Ghilzai fort called Kanakah and a ziarat to one Khalifa Sahib. Lawargai appears also to be known as Halatakh.

Camping ground.—Probably for a division at least.

Water.—For at least 2 infantry brigades from several karezes.

6 LANDI ----- MURGHA. 9 m. Camel road.

54 m.

The country of the Hotak Ghilzais is now entered, the road running generally W. through low hills. At 6 miles the halting place of Landi Murgha.

Camping ground.—No information.

Water.—For an infantry brigade at least, from several wells. Fuel.—No information.

Folder.—Fair camel grazing except in winter.

Supplies.—Nil.

7 PSHAI

.. 15 m. Camel road.

69 m.

Road runs N.W. across a sandy plain. At about 7 miles the Lora river is crossed by an easy ford. Here a camel road runs N.W. to the Ab-i-Istada Lake, some 50 miles distant. At about 12 miles the Surkh Koh range, which forms the eastern boundary of the Tarnak valley, is crossed by the Purshi or Surkai pass, the ascent and descent of which is quite easy for camels. At 15 miles Pshai, near which are several Hotak Ghilzai villages, also a Ghilzai post where transit duty is collected.

Camping ground.—Probably for a division.

Water.—For at least an infantry brigade from a spring.

Fuel.—No information.

Folder.—Probably a few hundred maunds bhusa procurable; camel grazing good except in winter.

Supplies.—A few hundred maunds unground grain should normally be available in this vicinity.

8 JANAT KHWARAH. 11 m. Camel road, suitable for wheeled artillery.

80 m.

Fodder.—A few hundred maunds bhusa normally procurable, fair camel grazing except in winter.

Supplies.—A few hundred maunds unground grain could

usually be collected from the adjacent villages.

Route 15-C, from Robat to Kala Sarkari, both on the Kabul-Kandahar road, crosses this route at this stage.

15 m. Camel road.

9 KALAT-I-—— GHILZAI.

95 m. (5,543')

Road runs due W. across a plain on which are a few low hills. At 9 miles the Tirwah stream is crossed by an easy ford; the road then turns N.W. heading straight for Kalat-i-Ghilzai, which stands on the far (right) bank of the Tarnak river, necessitating the crossing of this river. The Tarnak here in winter has a stream 20× to 50× broad and 2' to 3' deep, banks in most places rugged and precipitous; always fordable except after heavy rains. At 15 miles Kalat-i-Ghilzai.

KALAT-I-GHILZAI (5,543'). Population 1,500 chiefly Hotak and Tokhi Ghilzais. Garrison (1912) I squadron cavalry, 3 batteries and 3 battalions infantry. Consists of two fortified villages on the right bank of the Tarnak, N.W. of the

fort, and some felt tents on the plain around.

Fort.—In 1880 Major Gaselee described the fort as being a work of irregular profile, situated on a hill 100' above the surrounding plain. Roughly in the form of an oblong; N. and S. faces 300× long, E. and W. faces 150× long. Main gateway in the S. face; approaches are steep and fairly well flanked by a wall facing N.E.; rampart is surrounded by a loopholed wall 6' high, 2' thick; loopholes faulty and ill-constructed admitting of shelter being obtained under the wall; both wall and rampart are much out of repair. It would be necessary to breach the walls before attempting an assault. The weak point is on the N. side where there is an unused gateway; here the wall is very thin and the approaches to it not so steep as on the other side

earthen mound is a citadel or keep 80' above the main fort which it would be impossible to scale, but on the fort falling it could not hold out for want of water which is obtained from a perennial spring at the foot of the mound on which the keep is built. It has, however, a good command over the surrounding country.

Camping ground.— For a division on the open plain between

the fort and the river.*

Water.—For a division and more from the Tarnak river.

Fuel.—Scarce; the country in the vicinity is generally bare of trees with the exception of a few fruit trees on the hill slopes.

Fodder.—Khasil for the horses of a cavalry brigade, daily, during March and April; probably from 3,000 to 5,000 maunds bhusa always procurable; good camel grazing except in winter.

Supplies.—Practically all supplies sufficient for a division

for 1 or 2 weeks would normally be available.

On Sir F. Roberts' arrival at Kalat-i-Ghilzai on the 23rd August 1880 he found that the Officer Commanding the garrison had anticipated the arrival of the column by collecting a considerable quantity of stores and forage.

ROUTE No. 9-A.

KAJIR TO BARA KHEL.

94 miles.

9 stages.

Authority.—Afghan war records, 1839.

Epitome.

General description.—A kafila route from the Zhob valley to the Tokhi Ghilzai country; also a connecting route between the through Routes 8, 9 and 10, which are crossed at stages 9, 6 and 2 respectively; again this route together with Route 8-B and the last section of Route 8, both of which are joined at Bara Khel, form connections between the Zhob and the Kabul-Kandahar road which is mot at Maghaki (stage 12) in the first

ROUTE No. 9-A-contds

It connects at Kajir with Routes in Northern Baluchistan, Route 6 to Kamardin Karez and Route 61 to Quetta.

Road.—Camel road throughout, passable for wheeled artillery, though guns would have to be man handled in places, in the present state of the road.

The following obstacles are encountered:—

- (i) Kadanai river in the first stage; crossed by an easy ford.
- (ii) The Shadikhak pass also in this stage; difficult for guns.
- (iii) The Surkhab range in the 2nd stage no difficulty.
- (iv) The Shiri kotal in the 6th stage; ascent and descent easy.
- (v) A mass of hills in the 7th stage, separating the Ghundan and Upper Lora valleys; first range crossed by the Jallu kotal presenting no difficulty, thence succession of ascents and descents with a very bad road over remaining hills.

Route open throughout the year.

10 m.

Camping grounds.—) For at least 1 infantry brigade at all water.— intermediate stages.

Fuel.—Very little information, probably scarce throughout. Fodder.—Bhusa to an appreciable amount at stages 4, 6 and 7; fair to good camel grazing throughout except in winter.

Supplies.—Only a few hundred maunds unground grain procurable at stages 4, 6 and 7.

| No. of stage and total distance. | DETAILS. | | | |
|----------------------------------|--------------|-------|-------------|--|
| . 1 | KHUDU CHAMAN | 10 m. | Camel road. | |

of a watercourse to Khudu Chaman, reached at 10 miles, where there is a small stream coming from the hills to the E.

Camping ground.—No information; space appears to be confined; probably not room for more than one infantry brigade.

Water.—For the above force from the stream referred to.

Fuel.—No information.

Fodder.—Good camel grazing except in winter.

Supplies.—Nothing appreciable, though there is a little cultivation in the vicinity.

2 SAR-I-SURKHAB 15 m. Camel road.

25 m.

Road runs N. throughout the stage at first over a small range, then across an undulating valley, and is generally difficult for guns. At 4 miles, wells called Babakar Chahan. Here Route 10, the main kafila route from the Zhob valley to Kandahar, coming in from the E. is crossed.

After crossing the first hills there is apparently a steady ascent to the summit of the Surkhab range, the highest point of which is about half-way to Sar-i-Surkhab. Thence a considerable descent to the valley of a stream called the Surkhab. The road follows its course for the last mile. Camp at the head of the valley near the source of the branch of this river.

The road on this march is described as being fatiguing for both horses and camels.

Camping ground.—No information as to space.

Water.—For at least 2 infantry brigades with proportion of divisional troops from the Surkhab stream.

Fuel.—No information.

Fodder.—Fair grazing except in winter.

Supplies.—Nothing appreciable.

3 NADIR DEH .. 8 m. Camel road.

22 m

At this hamlet the Bombay troops found some bhusa secreted by the people who had deserted the country on their approach.

NOTE—From Nadir Deh a track leads to Abdulla Kala on the Surkhab, whence it follows the river to Maruf.

Camping ground.—For an infantry brigade at least.

Water.—For at least 2 infantry brigades with proportion of divisional troops from the Surkhab.

Fuel.—No information.

Fodder.—Fair camel grazing in spring and autumn.

Supplies.—Nil.

4 SPINWARI .. 10 m. Camel road.

43 m.

Road runs N. throughout the stage. For the first 3 miles it follows the bed of the Surkhab through a narrow valley as in the last march. The Surkhab valley then opens into that of Maruf, and the stream bends N.W. to join the Arghastan, some 10 or 11 miles above Maruf fort. The Maruf or Arghastan valley, stretching S. W. appears to be open and traversable by all arms.

From where the Surkhab is quitted, the road continues northwards and winds among hills, with several ascents and descents. (It might be better to follow the Surkhab some miles further and then ascend the valley; the distance would be greater, but road probably better for artillery.) The Upper Arghastan valley appears to be entered at about 9 miles. It is cultivated, but the inhabitants are said to live in tents, which they no doubt shift according to the season.

Spinwari is a mound (the ruins of a city) on the left bank of the river which here runs in a deep bed (described as a large ravine) containing plenty of water. It is about 20 miles N.E. of Maruf fort and in the same valley. A kafila route from Dera Ismail Khan to Kandahar crosses here.

Camping ground.—For at least 2 infantry brigades with proportion of divisional troops.

5 BASSUR KHEL .. 11 m. Camel road.

54 m.

Road now runs N.E. up the Arghastan valley. At about $6\frac{3}{4}$ miles Musa Utak (Ulak), a settlement of Hotak Ghilzais, at the foot of a small range of hills known as Baireghar running E. and W. on the left of the road.

Thence the road winds among hills for 5 miles with a considerable ascent. Bassur Khel is a collection of small Hotak Ghilzai hamlets.

Camping ground.—No details.

Water.—For an infantry brigade, at least, from a small tributary of the Arghastan river.

Fuel.—
No information, but probably good camel grazing
Fodder.—
except in winter.

Supplies.—Nil.

6 GHUNDAN .. 10 m. Camel road.

64 m.

The road goes N.E. apparently along the hills, for about 5 or 6 miles, and then crosses a range by the Shiri kotal. The road is not good, but the light guns of the Bombay Column met with no obstruction. Immediately the kotal is passed, Route 9, the through route from Zhob to Kalat-i-Ghilzai, coming from the S.E. is crossed at Lawargai, stage 5 of that route.

Leaving Lawargai a large, dry watercourse is entered. There is an ascent from this at 8 miles, and then a gradual rise to the camping ground which takes its name from a lofty hill near by on the right (E.). The district is also called Ghundan. The camp of the Bombay Column was on the bank of a deep, dry ravine, with a good stream of water in an irrigation channel close to it. There is cultivation here, and 3 or 4 miles to the Ware several villages. The people of the district are Tokhi Ghil-

ROUTE No. 9-A-contd.

Water.—For a force larger than the above from the stream referred to.

Fuel.—No information.

Fodder.—No details, but a few hundred maunds bhusa should always be procurable, good camel grazing except in winter.

Supplies.—A few hundred maunds unground grain normally

available.

7 KISHANI .. 11 m. Camel road.

75 m.

Road continues N.E. A mass of hills separates the Ghundan valley from that of the Upper Lora river. The route northwards lies across an open plain for 4 miles, and then over these hills, which are, no doubt, a series of parallel ridges, resembling those frequently met with elsewhere in S. Afghanistan. The first range is crossed by the Jallu kotal which appears to be easy. Thence a succession of ascents and descents; the road is very bad, and it was with difficulty the Bombay Column got their artillery along it. The hills are not cleared till the end of the march, when a large valley is entered extending S.W. The watercourse running down this is the main branch of the (Arghastan) Lora river. The valley is cultivated and populous, the inhabitants being Tokhi Ghilzais. The road turns N.E. after leaving the hills, but the camping place of the Bombay Column was at their foot, near the Mapan hamlets.

The name Kishani is given to a tract of some size in which are various villages or hamlets.

Camping ground.—For at least 2 infantry brigades with proportion of divisional troops near Mapan hamlets.

Water.—For the above force, and more, from the Arghastan (Lora) river.

Fuel.—No information.

Fodder.—About 500 maunds bhusa should normally be col-

ROUTE No. 9-A-concld.

Road continues N.E. veering more towards E. than in the last stage; road good and runs throughout the stage in a valley diverging from the main hills. At 8 miles Jamiat, a collection of small hamlets.

Camping ground.—For at least 2 infantry brigades with proportion of divisional troops.

Water.—For the above force from an irrigation stream.

Fuel.—No information.

Fodder.—Good camel grazing except in winter.

Supplies.—Nothing appreciable.

9 BARA KHEL .. 11 m. Camel road.

94 m.

Road continues N.E. over a plain intersected at intervals by dry watercourses. At 11 miles a group of large villages belonging to the Tokhi Ghilzais, known as Bara Khel. The halting place is also known as Tarkar-ka-Sir.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 8, stage 5.

ROUTE No. 9-B.

TIRKHA TO SAR-I-SURKHAB.

15 miles.

2 stages.

Authority.—Mardall, 1892; Benn, 1894.

Epitome.

General description.—A small, branch route from Tirkha in Zhob which joins Route 9-A at Sar-i-Surkhab (stage 2).

Road.—Camel road.

ROUTE No. 9-B—concld.

Fodder.—About 100 maunds bhusa at the intermediate stage; good camel grazing along the route, except in winter.

Supplies.—Nothing appreciable.

| No. of stage and total distance. | | % · C · · | DETAILS. | | |
|----------------------------------|---------|-----------|----------|-------------|--|
| 1 | MURGHAI | • • | 6 m. | Camel road. | |

Leaving Tirkha the road follows the Tirkha nala, direction N.W. At $3\frac{1}{2}$ miles the Kand river is crossed, and the cultivated fields of the Tokhi Ghilzais entered on the opposite bank, the direction still being N.W. On the left is a tope of tamarisk jungle called Mundan jungle. Camp reached at 6 miles.

Murghai Kala is a small village, belonging to the Tokhi Ghilzais, near the low spur of the Zhiobai range to the N.

Camping ground.—For at least 2 infantry brigades, with proportion of divisional troops on the plain.

Water.—For the above force from \bar{k} are zes.

Fuel.—Scarce.

Fodder.—About 100 maunds bhusa procurable; good camel grazing except in the winter.

Supplies.—Nothing appreciable.

2 SAR-I-SURKHAB .. 9 m. Camel road.

15 m.

6 m.

Leaving camp, road continues N.W. across open plains for 4 miles when one of the southern spurs of the Zhiobai range is met, round which the road winds. At 6 miles cross a range of

ROUTE NO. 10.

RASHID KALA (ZHOB) TO KANDAHAR.

Viâ Maruf and Amin Kala.

 $121\frac{1}{2}$ miles.

10 stages.

Authority.—2nd Afghan war records, 1880, and native information.

Epitome.

General description.—A main, through kafila route from Zhob to Kandahar, the greater portion of which follows the Arghastan river. It connects at Rashid Kala with Routes in N. Baluchistan, Route 20 to Kamardin Karez.

Road.—Camel road to Mandi Hissar (stage 9); thence disused cart road made by the British in 1880, with slight repair passable for carts again.

The following obstacles are encountered.

- (i) Arghastan and Lora rivers, in the 5th stage, both crossed by easy fords.
 - (ii) The Tarnak and Shorad rivers, in the last stage; both crossed by easy fords.

Route open throughout the year.

Camping ground.—For a division at stages 1, 3, 8 and 9 and for at least 3 at Kandahar; no information regarding stages 2 and 5; for at least an infantry brigade at remaining stages.

Water.—For an infantry brigade at least at all stages, but for a division also at stages 3, 5, 6, 7, 8 and 10.

Fuel.—Scarce, except at Maruf, (stage 3), where the hills surrounding the town are more or less wooded.

Fodder.—Grass only at stage 6; khasil for the horses of a cavalry brigade daily, during March and April at stages 3, 6

| No. of stage and total dis- tance. | DETAILS. |
|------------------------------------|---|
| $\frac{1}{10 \text{ m.}}$ | BABAKAR CHAHAN 10 m. Camel road. (6,375') |

Leaving Rashid Kala there are 2 tracks, one each from the upper and lower camping grounds.

The track from the upper camping ground, on the left bank of the river leaves camp in a westerly direction, and at once drops by a rather steep descent into the Kand river bed, which it follows for about 1 mile and then ascends the right bank. A road would have to be made, here, as the ascent is steep and difficult. On reaching the right bank, it is joined by the track which comes from the lower camping ground and which is really the main track. The road now leads over the cultivated fields of the Tokhi Ghilzais along the right bank of the river. some 20' above the stream. This cuts off a large bend in the river, at this point, which would mean a long detour if the road in the river bed were taken. At 2 miles the track after crossing the cultivation drops into the river bed again. On the right and left are low hills; those on the right about 4 mile distant and much higher than those on the left, which approach close to the river bank. The river bed here is 150 yards broad. with good flow of running water about 8 inches deep, over sand and shingle; the banks are 8 or 9 feet high. On the right is a small Tokhi village called Mulla Khel Kala. The track follows the river bed thus for about 3 miles, and the stream has to be crossed many times. A few quicksands were met, into which horses sank up to their hocks, but these were off the actual At 5 miles the river takes a bend to the N. and from this point it loses the name of the Kand and is called the Surkhab.

The track to Babakar Chahan leaves the river bed and ascends the left bank by a path and continues S.W. Passing over the spur of a low hill, it at once enters the Darai nala through cultivated fields between the Shalagai hills to the S. and the Darai hills on the N. which are about 1 mile apart.

At 6 miles a small Tokhi Ghilzai habitation is passed on the right, and the Darai hills disappear to the N.W. The track now runs a zigzag course among cultivated fields and water channels, until the head of the Darai nala is reached, where there is a spring of good water in the cleft of a rock on the left. The Shalagai hills have now approached the track and the path passes over a low spur, rising 40 feet in 100 yards. A gradual rise is continued from this point with open country on both sides until at 7 miles a straggling village belonging to the Alizai Kakars is reached. The track runs through cultivation for another mile, when at 8 miles is a spring among some rocks, in the centre of the valley, and the cultivation ceases.

Beyond this spring the road is between hills on both sides and up a gradual ascent for nearly 2 miles. This valley is only 200 yards wide.

At 9\frac{3}{4} miles the top of the rise is reached (250' in 1\frac{3}{4} miles) and the track runs over level and open ground for \frac{1}{2} mile; when it drops down over low hills and uneven ground until Babakar Chahan is reached at 10 miles. Babakar Chahan is a barren looking spot surrounded by low hills with four wells and a grassy plot at its S.W. side, and a well kept praying ground at its N.E. border. The space between these low hills is 250 \times long by 250 \times broad, but from its S.W. edge an open stretch of land, 150 \times wide, extends for a considerable distance to the S.W. so that there would be ample room for a camping ground for a large force. The water in three of the wells was sweet and clear; that in the fourth was discoloured and was evidently

Supplies.—Nil.

Here Route 9-A, running from Kajir in Zhob to Bara Khel, is crossed.

2 GWANZA .. 12 m. Camel road.

22 m.

Track leaves Babakar Chahan through the low hills immediately to the S.W. There is a well-defined track. Continuing N.W. it passes over the Kotkai hills, by an easy kotal. The road is said to be fit for laden camels. Camp is reached at 12 miles. There are many Barakzai Durani villages in the vicinity.

Camping ground.—No information.

Water.—For an infantry brigade or more from the Kokacha nala.

Fuel.—Scarce.

Fodder.—Good camel grazing except in winter.

Supplies.—Nothing appreciable.

3 MARUF .. 15 m. Camel road.

(6,000')
37 m.

Leaving Gwanza the track runs N.W. for 4 miles, where it turns at right angles to the left and heads S.W. for Maruf. At this turn a camel track runs roughly E. to Nadir Deh.

At 9 miles the Arghastan valley is entered, the track hitherto having lain among low hills which now cease. From this point to near Kandahar the route follows the Arghastan valley. At 15 miles Maruf.

Maruf is described as situated in the centre of an almost circular plateau, surrounded by hills more or less wooded.

Grapes and figs are dutiable by the Amir's Customs, and the export of almonds is absolutely forbidden. Donkeys are generally used in this smuggling trade, as they are easier to hide than camels. These kafilas of almonds, however, are said never to be stopped by the Amir's posts except when they cannot afford to pay the dastur of three Kabuli rupees per camel load.

No manufactures either of arms or cloth are carried on in Maruf. The garrison consists of about 120 khasadars. The level is probably well below 6,000 feet, as grapes, etc., appear to ripen every year.

Camping ground.—For a division.

Water.—For the above force from the Arghastan river and many irrigation channels.

Fuel.—Abundant from the wooded hills referred to.

Fodder.—Khasil for the horses of a cavalry brigade daily during April and May; probably between 2,000 and 4,000 maunds bhusa ordinarily available; good camel grazing except in winter.

Supplies.—About 2,000 to 4,000 maunds unground grain should normally be procurable; almonds, grapes and figs as already described.

4 MEZKIN KHAN .. 14 m. Camel road,

51 m.

Road continues S. W. along the left bank of the Arghastan river.

At 11 and 12 miles pass the Barakzai villages of Arvat and Muhammad Aslam respectively, both on the right bank of the river. At 14 miles Mezkin Khan.

Camp on the left bank of the river, village on the opposite

NUR MUHAMMAD 14 m. Camel road. 5 KHAN.

65 m.

From the map it would appear that the Arghastan was forded here and that the track temporarily leaves this valley and crossing a range of hills descends into the valley of the Lora river which is also crossed. The fording of the Arghastan and Lora rivers in these upper reaches can present no difficulty. The Lora river is reached at 8 miles and the track continues nearly due W. along its right bank. At 14 miles Nur Muhammad Khan, a Barakzai village with a fort

Camping ground.—No information.

Water.—For a division and more from the Arghastan.

Fuel.—No information.

Fodder.—Possibly 1,000 maunds bhusa could be collected. Good camel grazing except in the winter.

Supplies.—About 1,000 maunds unground grain normally

available.

6 AMIN KALA.. 14 m. Camel road.

79 m.

The road now runs N.W. At 6 miles the Arghastan coming in from the S.E. joins the Lora, the 2 rivers thereafter being known as the Arghastan; at 10 miles the Khushk Rud is crossed by an easy ford, just prior to its junction with the Arghastan. Thence the road turns S.W. and heads direct for Amin Kala which is reached at 14 miles, the Wandoz nala being crossed just before camp.

Amin Kala, Barakzai village (100 houses); very wealthy, inhabitants owning broad tracts of well-irrigated lands; also a

5,000 maunds bhusa should normally be procurable; good camel grazing except in winter.

Supplies.—There are 4 large Barakzai villages viz. Saifulla, Abdul Latif, Mir Aslam and Mir Alam within 2 miles of Amin Kala to the N. on the right bank of the Wandoz (Wuchanakar) nala. From these villages it is estimated that 5,000 maunds unground grain could normally be collected and there are several miles. Cattle, sheep and goats in large numbers can also be obtained.

7 ATA MUHAMMAD 9 m. Camel road.

88 m.

The road runs S.W. on the right bank of the Arghastan.

At intervals of about ½ mile are Muhammad Hasan, Abdulla Khan, and Pir Muhammad. From Pir Muhammad to Ata Muhammad (about $6\frac{1}{2}$ miles), the road passing under the high hill to the N. of the latter place becomes very difficult for wheeled traffic. In a few places it would be necessary to leave the road and pass through the low gravelly hills to the N. owing to the rocky and dangerous nature of the path along the river bank. Between Pir Muhammad and Ata Muhammad is the village of Fakhr-ud-din, and on the left bank close to Fakhr-ud-din is the Lahar nala, 3 miles from the mouth of which is the village of Somailai. Between Amin Kala and Pir Muhammad, on the left bank of the river, is Tajao, to the S.E. of which are the villages of Muhammad Khan, Loi Karez, Kachnai Karez, and Imarat. To the four latter villages there is a rough road from Amin Khan.

Ata Muhammad (50 houses), inhabitants Muhammadzai Barakzais who own a large tract of cultivated land and a watermill.

Camping ground.—For one infantry brigade.

8 MURGHAN KECHAR .. 15 m. Camel road. (3,660')

103 m.

The road proceeds W. along the right bank of the river for about 12 miles, when it turns N. and leaves the valley of the Arghastan, crossing a low *kotal*, which offers little difficulty for the passage of guns. It then proceeds in a westerly direction towards Murghan Kechar.

The right bank of the Arghastan, along which the road runs, slopes gradually down to the water. The opposite bank is steep and only accessible at intervals to guns and cavalry.

Sangzai, Karwan Kats, and Batar are passed at 3, 5, and 7 miles, respectively.

Before reaching Sangzai the Sodanai and two small nalas are crossed. On the former is situated the village of Khogani, which consists of three hamlets about half a mile apart.

The nalas present no difficulty to the passage of guns. The drainage from the hills on the right of the road falling into the river crosses and cuts up the track at frequent intervals, but most of the nalas thus formed can be made practicable for guns with a few minutes' labour.

The road is commanded on the right, throughout almost its entire length, by low undulating hills. An enterprising enemy might seriously annoy convoys, all the ground being favourable for the concealment of large bodies of men.

At about 15 miles the Popalzai village of Murghan Kechar (200 houses), situated on a wide plain which extends to the left bank of the Tarnak river about 5 miles to the N.; village is thus about midway between the Tarnak and Arghastan rivers. Detachment of Afghan infantry was quartered here in 1878-80; heliographic communication can be established between the village and "Piquet Hill" at Kandahar.

Fodder.—Khasil for the horses of a cavalry regiment at least. daily between the 15th March and the 15th May; about 1,000 maunds bhusa ordinarily procurable; good camel grazing except in the depth of the winter.

Supplies.—At least 1,000 maunds unground grain should be

normally available.

MANDI HISSAR .. 8 m. Camel road.

111 m.

Road now proceeds nearly W.; at 1 mile nala is met which would be difficult to cross with guns during rainy weather, owing to the swampy nature of the ground near the road, and a slight detour to either bank would be necessary; between the 4th and 5th miles a second nala is met, which presents little difficulty; with these exceptions the road throughout the stage, which passes through a stony, undulating country is good. At 8 miles Mandi Hissar (100 houses) inhabitants Nurzais and Barakzais.

Camping ground.—For a division, though limits are liable to be restricted owing to cultivation; camping ground in 1879-80 was protected by a walled defensible enclosure and ditch, which was in good order in 1893, but this camp was only sufficient for 2 brigades.

Water.—For the above force from karezes near camp, and from the Tarnak river 2 miles N. of camp, where animals could be watered.

Fuel.—No information.

Fodder.—A few hundred maunds bhusa normally available; camel grazing only fair and nil in winter.

Supplies .- A few hundred maunds unground grain ordinarily procurable, also 300 to 500 sheep. About 100 transport

camels could generally be relied on here.

ROUTE No. 10-A.

RASHID KALA TO KAJIR.

Viâ the Birka Pass.

26 miles.

11 m.

2 stages.

Authority.—Native information, 1894.

Epitome.

General description.—One of the roads connecting Rashid Kala with the Kadanai. It connects at Kajir with Routes in Northern Baluchistan, Routes 6 and 63.

Road.—First stage camel road; 2nd stage mule road.

The Birka pass (7,880') in the 2nd stage is the only obstacle met with; it presents no serious difficulty to laden mules.

Route open throughout the year.

Camping ground.—For 1 battalion at stage 1, and for 1 infantry brigade at stage 2.

Water.—For 1 infantry brigade at least at both stages.

Fuel.—Scarce at intermediate stage, plentiful at Kajir.

Fodder.—A little bhusa at Kajir; good camel grazing throughout.

Supplies —200 to 300 maunds unground grain procurable from Kajir.

| No. of stage and total distance. | ₹.I | DETAILS. | | | |
|----------------------------------|---------------------------------|----------|-------|-------------|---|
| 1 | PASHGHBARGAI KHULA (6,625'). | • • | 11 m. | Camel road. | • |

General direction S.; road passable for all arms throughout the stage.

The track leaves camp in an S.E. direction across the Tanda

nala is only some 10× broad, and on reaching the right bank which is almost flush with the adjacent ground, the direction is again S. E. From this point the track lies in the bed of the Tanda nala for 8½ miles. The nala is confined between low hills throughout, and rigzags considerably; the water has to be crossed many times. The hills on either side are often precipitous, and average 50 to 100′ in height. At its narrowest point the valley is 30× wide, while it expands to 200× in places. A noticeable feature of this route is the amount of cultivation that exists almost entirely on the left bank and belongs to the Pseins. The Afghan system of water channelling on both banks is most striking.

At 6 miles Mulla Jullundur Kala is passed, belonging to the Pseins. It lies on the left bank and is surrounded by It consists of 6 mud huts and a few blanket tents, and there is much cultivation in the vicinity. The river and track now make a detour to the left, and circle round the high precipitous hill which commands the village from the S. Two tracks branch off from here; one to the N.E. to Ata Muhammad Kala and the Tirkha nala, and the other to the E. to the Lewa tangi and Psein Dag, also one to the N. W. to Babakar Chahan. The river bed now narrows down and is only 30× wide. It continues thus for 2 miles. At $7\frac{1}{2}$ miles is Mahaka China, where there is a spring on the left bank, marked by a grassy plot in the vicinity. The water is sweet and the supply plentiful. The nala makes a bend to the E. here and the track cuts across the intermediate space over higher ground, meeting the river bed again 4 mile further on.

At $8\frac{1}{2}$ miles is another Psein village, and the valley widens to $200\times$. Hills on both sides are now much higher, and the valley is again confined. At 10 miles it is $200\times$ wide again. At 11 miles the Tanda nala makes a sharp bend to the W. and the Pashghargai nala comes in from the E.; the camping ground is about

ROUTE No. 10-A—concld.

2 KAJIR (6,970')

15 m. Mule road.

26 m.

General direction S. W. Follow the Tanda nala and ascend the northern spur of the Nakhas hilis; at about 7 miles the Birka kotal (7,880') is reached, whence there is a descent of about 1 mile by the Birka ziarat nala to the Psein Dag; ascent and descent of the pass present no serious difficulty to laden mules. At 12 miles cross the Dag Lora, the track then running due S. to camp. At 14 miles Kajir, a collection of mud huts and blanket tents.

Camping ground.—About 1 mile W. of Kajir; dimensions $400 \times \text{ by } 150 \times$.

Water.—160,000 gallons in 24 hours from 2 springs in the Taghratu nala.

Fuel.—Plentiful; there is much tamarisk jungle to the E. and W. of camp.

Fodder.—Bhusa to a limited extent from Kajir itself; good camel grazing.

Supplies.—200 to 300 maunds unground grain procurable from Kajir.

ROUTE No. 10-B.

RASHID KALA TO KAJIR.

Viâ the Shadikhak pass.

27 miles.

20 stages.

Authority.—Native information, 1894.

Epitome.

Camping ground.—For 2 infantry brigades at stage 1 and for half that force at stage 2.

Water.—For 1 infantry brigade, at least, at both stages. Fuel.—Scarce at intermediate stage, plentiful at Kajir.

Fodder.—A little bhusa at both stages; good camel grazing throughout.

Supplies.—200 to 300 maunds unground grain procurable from Kajir.

PERSHAI NALA .. 14 m. 4f. Camel road, reported fit for wheeled artillery.

General direction S.W. Leave Rashid Kala in an S.W. direction across open ground and at $2\frac{1}{2}$ miles join the Wucha nala which flows to the Kand river. This is followed for about 2 miles further. At $5\frac{1}{2}$ miles a track going N.W. to Maruf, by the Sam Narai pass, is crossed and there is a little water in pools here and there. The track still continues in the nala bed. At 6 miles there is an old graveyard and some encampments of the Psein tribe, also an open space for halting. At 10 miles there is water in the nala bed which is absorbed after a short distance, also patches of cultivation belonging to the Pseins.

At 11 miles the road bifurcates. That to the right is the Shadikhak pass road, that to the left goes more direct to Kajir. The track then ascends a slight *kotal*, and $\frac{1}{4}$ mile further on is a Psein encampment, called Zaku. where are two ponds or tanks for collecting water for cultivation purposes. At $11\frac{1}{2}$ miles is a *chashma*, a spring which is the source of the water in the tanks mentioned above.

At 13 miles the road again divides into two, the right-hand one leads to the Shadikhak pass, and the left-hand one

ROUTE No. 10-B—concld.

Camping ground.—For about 2 infantry brigades on open ground.

Water.—For the above force and more from the Pershainala.

Fuel.—Scarce.

Fodder.—Bhusa procurable to a limited extent; good camel grazing.

Supplies.—Nil.

2 KAJIR .. 12 m. 4 f. Camel road reported fit for wheeled artillery, except over the Shadikhak pass where guns would have to be man-handled.

Leaving camp the road follows Pershai nala S. for $\frac{1}{2}$ mile and then strikes off S. W. A branch road here goes off S. E. which is the road $vi\hat{a}$ the Sheganrai pass to Kajir. The Shadikhak road after leaving the nala runs over undulating ground, and at $2\frac{1}{2}$ miles joins the Pachaman nala, which it follows S. as far as its head which is reached at about $3\frac{1}{2}$ miles. The road is now through the main spurs of the Nakhas range, and the Shadikhak pass is reached at about $6\frac{1}{2}$ miles. The pass is impracticable for wheeled artillery and guns would have to be man-handled over it.

From the Shadikhak pass a camel track runs due N. to Babakar Chahan (Route 10, stage 1) 14 miles distant.

After the pass the road runs S. E. to Kajir.

Camping ground.—About 1 mile W. of Kajir; dimensions 400^{\times} by 150^{\times} .

Water.—160,000 gallons in 24 hours from 2 springs in the Taghratu nala.

ROUTE No. 10-C.

ALA JIRGHA TO BABAKAR CHAHAN.

 $30 \ miles$.

2 stages.

Authority.—Native information, 1894.

Epitome.

General description.—Forms part of a kafila route between Dera Ismail Khan and Kandahar. It connects at Ala Jirgha with Routes in Northern Baluchistan, Route 6 leading to Kamardin Karez.

Road.—Camel road throughout, second stage passable for wheeled artillery though heavy in places.

The following obstacles are encountered.

(i) a tangi in the first stage; blocked by rocks and boulders, difficult for laden camels, and impassable for wheeled artillery;

(2) the Hissal Ghat pass (7,370'), and the Pashghbargai pass (7,300') both in the first stage; both passes

easy.

Route open throughout the year.

Camping ground.—For 1 battalion only at the intermediate stage.

Water.—For 1 infantry brigade at least at the intermediate

stage and at Babakar.

Fuel.—Scarce throughout.

Fodder.—Camel grazing excellent throughout.

Supplies.—Nothing appreciable.

| No. | | | |
|------------|--|--|--|
| of stage | | | |
| and | | | |
| total dis- | | | |
| tance | | | |

1

DETAILS.

15 m. Camel road. **PASHGHBARGAI** KHULA (6,625').

that about 1860, the headmen of all the adjacent tribes assembled on this spot to discuss the demarcation of their respective lands.

At 2 miles the track passes through a tangi much blocked by rocks and boulders, through which a stream of water runs, and ascends over a slight rise. This part is difficult for laden camels and impassable for wheeled artillery. Hence due W. through open ground by a good road. The nala is again met issuing from the Nakhas hills on the left and at 2½ miles at a confined place among rocks, the track crosses the nala and follows its right bank.

At 3 miles is the village of Torkabaz (7,110') on the left bank of the Ala Jirgha nala. This belongs to the Pseins, and there the Afghan Commission camp was pitched. The space for camping here is unlimited. Thence the track ascends a spur from the summit of which a good view of the Psein Dag, and the Zhob hills including the curious conical hill Yogwash is obtained to the S. E. At $3\frac{3}{4}$ miles the track again follows the nala bed. It then passes along the right bank of the Pinakul tangi and again drops into the nala, which is now called the Pshai nala, in which there is some water and boulders. At 41 miles the track leaves the Pshai nula which has become shallow and dry, and ascends through low hills, to a height of 7,410', thence by a gentle descent between two high parallel hills where the going is uneven and the pathway often only 2 yards wide, for about 3 mile. Descent of about 20' by zigzag pathway into the Psein Khula nala 50 yards wide, dry, and with a thick saline deposit. At 63 miles the track crosses the nala. On the left close to the track is a spring of drinkable water. Thence by an easy ascent, to the summit of the Hissal Ghat pass (7,370'). and turning S. W. by a gentle descent of ½ mile to Sarkar Suhai China, at 8 miles, a halting place on a foot-path to Ala Jirgha. Here is a spring of water. Thence by a gentle ascent over the

the rock. The track takes a zigzag course among the hills, which are known as the Pashghbargai hills on the right and as the Babar Ghoargai hills on the left. Two or three Psein villages and some patches of cultivation are passed. The ground is strewn with boulders and loose stones through which the roadway 5 yards wide winds. At 14 miles the direction changes from W. to S. W. and the track enters the Pashghbargai nala. The river bed is only 6 yards wide, high rocks on left. Then through low hills, some Psein cultivation and a spring. Camp is on the left bank about 200 yards from the junction of the Tanda with the Pashghbargai nala. The camp is commanded on all sides by hills.

The high peaks of the Nakhas range to the S. appear quite close, from the camps, but two ranges, viz., the Saleh Dwarah and Babar Ghoargai exist in the intermediate space.

Camping ground.—For 1 battalion.

Water.—For 1 infantry brigade at least from the Tanda nala.

Fuel.—Scarce.

Fodder.—Camel grazing excellent.

Supplies.—Ni'.

BABAKAR CHAHAN 15 m. Camel road fit for wheeled artillery, though heavy in places.

General direction N.W. The track now follows the Tanda nala. At 1 mile the valley is 200× wide; it rapidly becomes confined between hills on both sides. At $2\frac{1}{2}$ miles it again widens to $200\times$ and a Psein village is passed. At $3\frac{1}{2}$ miles Mahaka China where is a spring on the left bank giving a plentiful supply of good water. The river bed now narrows to $30\times$ and continues thus until at 5 miles Mulla Jullundur, Kala is passed, belonging to the Pseins. It lies on the left bank and is surrounded by low hills. It consists of 6 mud

ROUTE No. 10-C—concld.

direction. At $6\frac{1}{4}$ miles the Isaka nala is crossed, and about $6\frac{3}{4}$ miles the Wucha Mandai. The track then runs along a branch nala for 1 mile and then among low hills, crossing four or five small nalas until at 11 miles it reaches the Sra Pinakai plain. This it crosses in an N. W. direction over level open ground, and reaches Babakar Chahan at 15 miles.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 10, stage 1.

ROUTE No. 10-D.

BAIANZAI TO GWANZA.

30 miles.

3 stages.

Authority.—Native information.

Epitome.

General description.—Route connecting Baianzai on the Kadanai river with the main through Route 10. It connects at Baianzai with Routes in Northern Baluchistan, Route 6, to Kamardin Karez.

Road.—Camel road throughout; second stage passable for wheeled artillery.

The Lakarai Band in the third stage is practically the only

obstacle encountered, and that presents no difficulty.

Camping ground.—For 1 infantry brigade at both intermediate stages.

Water.—For 1 infantry brigade, at least, at all stages.

Fuel.—Plentiful throughout.

Fodder.-Good camel grazing throughout.

Supplies.—Nothing appreciable.

ROUTE No. 10-D—concld.

General direction N. Road through undulating uncultivated country. At 5 miles reach the Saliso Mand river which is followed to the end of the stage. At 11 miles Deh Mulian, consisting of a few hamlets surrounded by cultivation.

From Mulian a camel track runs W.N.W. to Kokal Kach,

Route 10-E, stage 1, about 6 miles distant.

Camping ground.—For 1 infantry brigade.

Water.—For the above force and more from the Saliso Mand.

Fuel.—Plentiful.

Fodder.—Good camel grazing.

Supplies.—Nil.

AGARAH .. 14 m. Camel road passable for wheeled artillery.

25 m.

General direction N. Country generally suitable for passage of all arms. At about 9 miles the road winds through the low hills of the Kotkai range, no difficulty. At 10 miles enter the cultivated district of Agarah, a broad and level valley in which both corn and cotton are grown. It belongs to the Popalzai section of the Duranis. At 11 miles the Durani village of Agarah (100 houses).

Camping ground.—For one infantry brigade.

Water.—For the above force and more.

Fuel.—Plentiful.

Fodder.—Good camel grazing.

Supplies.—Nothing appreciable.

3 GWANZA .. 5 m. Camel road.

30 m.

General direction N. At 3 miles cross a low range, the Lakarai Band, practicable for all arms except wheeled artillery. This range is the boundary between Agarah and the Maruf district which belongs to the Barakzai Duranis. The

ROUTE No. 10-E.

MANAK NIKAH TO MARUF.

22 miles.

2 stages.

Authority.—Native information, 1901.

Epitome.

General description.—This route connects at Manak Nikah with routes in Northern Baluchistan, Route 29, a small branch route of the through (North Baluchistan) Route 6, to Kamardin Karez.

Road.—Camel road, passable for wheeled artillery except over the Manak Nikah kotal at the outset, where some labour would be necessary before it is practicable for wheeled guns.

The following obstacles are encountered:—

The Manak Nikah kotal in the first stage; already described.

The Khankai kotal in the second stage; no difficulty.

Route open throughout the year.

Camping ground.—For one infantry brigade at least at Kokal Kach, the intermediate stage.

Water.—For 1 infantry brigade at the intermediate stage.

Fuel.—Procurable from tamarisk trees.

Fodder.—Bhusa to an appreciable extent at Kokal Kach; good camel grazing throughout.

Supplies.—A considerable amount of wheat and barley is normally stored at Kokal Kach.

| No. of stage and total dis- tance. | | Detai | LS. |
|------------------------------------|-----------------------|----------|--|
| 1 | KOKAL KACH | 8 m. | Camel road passable |
| 8 m. | | | for wheeled artillery, except over the Manak |
| NT:1 - 1 7 4 | I at the beginning of | the ates | ** |

Nikah kotal at the beginning of the stage.

ROUTE No. 10-E—concld.

trade centre, as it is the point on which all caravan routes leading across Toba to Maruf converge.

Camping ground.—For 1 infantry brigade at least.

Water.—For the above force and more from the Kokal Kach and Daurai streams.

Fuel.—To a limited extent from tamarisk trees.

Fodder.—Bhusa to an appreciable extent obtainable; good camel grazing.

Supplies.—Wheat and barley to some considerable extent is normally stored at Kokal Kach.

General direction N. The road runs at first down the Kokal Kach stream for about two miles, passing through a gap in the Kotkai Sar range. This tangi is said not to offer any obstacle for wheeled traffic. About here the Kokal Kach stream is crossed and shortly after the Daurai, which unites within a few miles lower down with the Kokal Kach stream and form the Salesun river. The Obatu range is then crossed by a low kotal known as the Khankai kotal passable for wheeled artillery, and the road then descends into the Arghastan valley, reaching Maruf about 14 miles from Kokal Kach.

ROUTE No. 10-F.

DOBANDI ON THE KADANAI TO MARUF

Road.—Camel road throughout.

No obstacles are encountered along the route, which is open throughout the year.

Camping grounds.—Stages 1 and 2 for one infantry brigade, and for a division at Maruf.

Water.—For one infantry brigade at least at intermediate stages, and for a division at Maruf.

Fuel.—Plentiful throughout from the wooded hills.

Fodder.—Bhusa at stages 2 and 3; good camel grazing throughout.

Supplies.—1,000 maunds unground wheat and barley at stage 2; considerable supplies at Maruf.

| No. of stage and total dis- tance. | DETAILS. | | |
|------------------------------------|-----------------------------|-------|-------------|
| 1 10 m. | GARAI OR KHAJOA (5,100') | 10 m. | Camel road. |

On leaving camp the road follows the course of the Kadanai river in a north-westerly direction passing at once the Tashrabat river on the left. The valley is much more open, and the course of the river less zigzag. At $1\frac{3}{4}$ miles the Tajora nala comes in on the left, in which there is a plentiful flow of water, which is diverted on entering the bed of the main river into a water channel for the cultivation down stream. Up this nala is a path to Chaman by three stages, said to be passable though difficult for laden camels.

At $2\frac{3}{4}$ miles the Landai *nala* joins the main stream on the left. It is a dry water-course. At 3 miles is Wala and the Wala nala which comes down to meet the left bank of the river. It is a narrow water-course, with a good stream of water, between pre-

in 1894. The ground is sandy and covered with scrub, and has a gentle slope to the river bed. Here there is—

Camping ground.—For 1 infantry brigade.

Water.—For the above force at least from the river.

Fuel.—Plentiful from the hills close by.

Fodder.—No grass obtainable; fair camel grazing.

Supplies.—Nil.

Continuing N. W. down the Kadanai, at $5\frac{1}{2}$ miles on the right bank is the Afghan levy post of Manawa or Manah, where there is also much cultivation, and a ziarat belonging to the Alikozai Duranis. On the opposite bank about $\frac{1}{4}$ mile further on is a large amount of cultivation, and the place is called Shin Narai Karwinda. The direction is still N. W., and the road continues along the river bed which is wide, but flanked by generally inaccessible hills for 4 miles. At 10 miles is the Alikozai village and cultivation of Garai, and here the river makes a bend to the S. W.

Camping ground.—For 1 infantry brigade at least. Water.—For a division if necessary from the river. Fuel.—Plentiful from the adjacent hills. Fodder.—Good camel grazing, Supplies.—Nil.

2 SALESUN .. 15 m. Camel road.

25 m.

General direction N. E. The track at once leaves the bed of the Kadanai and enters the Sar Tash nala, which here is about 15× wide, the going is good and the road fit for all arms for 2 miles. Here the nala branches into two; one branch going off to the N. E., the other to the N.; the track to Maruf runs up the latter (N.) branch, and the nala at once becomes confined. At 3½ miles it is only about 1 yard wide, and this confined portion continues for ¾ mile. On both sides are soft hills of loose shale

ROUTE No. 10-F—concld.

into two parts. At $4\frac{1}{2}$ miles, one continues N. E., the other turns off to the N. The latter runs up to the Narin peak on the left. The former (N. E.) is the road to the Salesun river. The remaining portion of this route is as it was seen from Narin peak (8,200'). Continuing up the Narin nala for another mile its limit is reached, and the direction changes more to the E. At 9 miles the Ghora nala is entered, and the road follows this for about 6 miles, joining the Salesun river, which comes in from the S. E., just above the junction of the latter river with the Arghastan river. There appear to be many villages and a quantity of cultivation along the Salesun, and ample room for a camping ground. The road by the Ghora nala appeared to be among low hills all the way. Camp is reached at 15 miles.

Camping ground.—For at least 1 infantry brigade.

Water.—For the above force and more from the Salesun river.

Fuel.—Procurable from the adjacent hills.

Fodder.—About 1,000 maunds bhusa normally procurable; good camel grazing.

Supplies.—About 1,000 maunds unground wheat and barley could be collected from the Salesun villages.

MARUF .. 15 m. Camel road.

40 m.

3

General direction N. E. At 3 miles the Arghastan river is reached whose left bank the road now follows. The Samai range flanks the right bank of the river and to the S. of the left bank are low hills, the northern spurs of the Kotkai range. Henceforward to Maruf the road is identical with that section

ROUTE No. 10-G.

SARBILAND TO DABRAI.

47 miles.

4 stages.

Authority.—Massy (from native information), 1894.

Epitome.

General description.—A connecting route between the three through Routes 10, 11 and 12. It would appear to be the easiest for use in an advance from the Chaman plain to the Arghastan valley and thence to Kalat-i-Ghilzai.

Road.—Camel road throughout, probably passable for wheeled artillery.

The following obstacles are encountered:-

In the 1st stage the Lora and Arghastan rivers; temporarily impassable during floods.

Route open throughout the year.

Camping ground.—For 1 infantry brigade at least at the intermediate stages.

Water.—For the above force at least, at all stages.

Fuel.—Procurable at all stages.

Fodder.—Good camel grazing throughout.

Supplies.—Nothing appreciable at the intermediate stages.

| No. of stage and total dis- tance. | DETAILS. | | | | |
|------------------------------------|----------|----|-----------|-------------|--|
| 1 | BADOZAI | •• | 6 m. 4 f. | Camel road. | |
| 6 m. 4 f. | | | | | |

The road leaves Sarbiland in a south-westerly direction over sandy soil cut up by a small water-course. At about I mile

ROUTE No. 10-G—contd.

Khan hill is under cultivation, and, when irrigated, is difficult for the passage of wheeled carriages and camels, and it would take a considerable time for a large force to get over it. Cavalry, laden mules and ponies should be sent over the Shaikh Khan pass. The ground between the hill and the Arghastan river is rough and stony, but passable for guns. The Arghastan is crossed opposite Badozai, crossing similar to that of the Lora river. Between the river and the village is a strip of cultivated land crossed by water-courses.

At $6\frac{1}{2}$ miles the Popalzai village of Badozai (60 houses). Camping ground.—For 1 infantry brigade S.E. of the village.

Water.—For 2 or 3 infantry brigades from the Arghastan.

Fuel.—Procurable from the adjacent hills.

Fodder.—Good camel grazing along the river bank and in low hills above the village.

Supplies.—Nil.

Note.—Although this is a short march it would be inadvisable to make it longer as 2 rivers have to be crossed.

2 CAMP KAREZ .. 10 m. 4 f. Camel road.

17 m.

General direction due S. On leaving Badozai the road leads S.W., through the low hills overlooking the village. At 5 miles the Kanaksai nala; no difficulty. The road then crosses a wide and level plain called Bala Jer leaving the village of Buka Khan about 1 mile to the right. With the exception of a few places near the Kanaksai nala and near camp Karez the road is good and passable for all arms. The karez is at the extremity of Buka Khan hill. At about $10\frac{1}{2}$ miles camp Karez.

Camping ground.—For 1 infantry brigade, perhaps more.

ROUTE No. 10-G—concld.

3 LOI KAREZ ...

15 m. Camel road,

32 m.

General direction due S. Leaving camp Karez the road runs S.W., across a sandy plain on which there are a few villages of about 8 to 10 houses each. A few small nalas are crossed at about $2\frac{1}{2}$ miles from the karez. At 12 miles, leaving the Torghar hills on the right, the road enters a large nala, and follows its bed, which is rough and stony, until it arrives at the village of Khwas Muhammad, on the left bank. The road then leaves the nala, crosses some low, rocky hills to the left, and after passing over an undulating, sandy plain arrives at the large village of Loi Karez.

Camping ground.—For 1 infantry brigade, perhaps more, E. of village.

Water.—For the above force from the karez,

Fuel.—Procurable to a limited extent.

Fodder.—Good camel grazing.

Supplies.—Nil.

4 DABRAI

15 m. Camel road. General direction S.W.

47 m.

Leaving Loi Karez, Shah Pasand is passed at 1 mile on the right of the road. At 2 miles Route 11-A is crossed near the village of Asad. At about 6 miles Route 11, the northern of the 3 through routes from New Chaman to Kandahar, is crossed near the village of Mulla Dost Muhammad. The soil is here sandy and the ground undulating.

At the 11th mile the Kushobai nala is met, but it offers little difficulty for the passage of wheeled carriage. From the Kushobai nala to Dabrai, the country is perfectly open and easily traversed in any direction. The number of villages here show that this district is thickly populated. At 15 miles Dabrai,

ROUTE No. 11.

NEW CHAMAN TO KANDAHAR.

Viâ Saiadan and the Barghana pass.

72 miles.

7 stages.

Authority.—Afghan war records, 1879.

Epitome.

General description.—One of the 3 main through routes from the railhead at Chaman to Kandahar, formerly known as the "northern" or "alternative" route.

Road.—Camel road to Mandi Hissar (stage 6), thence disused cart road made by the British in 1880; with slight repair passable for carts.

The following obstacles are encountered:—

- (a) Rivers and streams—
 - (i) The Kadanai river in the first stage.
 - (ii) The Kushobai and Mel rivers in the third stage.
 - (iii) The Arghastan river in the fifth stage.
 - (iv) The Tarnak river in the sixth stage.

All the above are crossed by easy fords, but during floods the Arghastan is temporarily impassable.

(b) Passes—

The Putu-kai kotal in 4th stage; no difficulty.

The Barghana pass in fifth stage; an easy road through low hills and broken ridges.

Route open throughout the year.

Camping ground.—No details regarding stage 2; for a division at stages 5, and 6; for 2 infantry brigades with proportion of divisional troops at remaining stages except stage 4, where there is space for 2 battalions only.

Water.—At stage 1 amount uncertain; for a division at stages 2, 5, and 6; for at least 2 infantry brigades with proportion of divisional troops at remaining stages.

First At stages 1 2 and 1 in the form of small hughes (wild

Supplies,—Unground grain to a limited extent at stages 1, 5 and 6.

For description of Kandahar and supplies available there, vide Route 12.

| No. of stage and total dis- tance. | DETAILS | 3. |
|------------------------------------|---------|---|
| 1 (AKBAR) AKHTAR. | 12 m. | Camel road, passable for wheeled artillery. |

Leaving new Chaman (4,450'), the road runs N.W. over the open plain, forming the northern arm of a fork which it makes with the old cart road (Route 12). The track is not clearly defined and the ground is stony practically the whole way and there is a gradual fall to the first (and main) channel of the Kadanai which is reached at 9 miles. The Kadanai, almost always dry, is crossed here and presents no difficulty except after heavy rain on Toba, when it may be impassable for 24 hours. At $9\frac{1}{2}$ and $10\frac{1}{2}$ miles two smaller channels of the Kadanai which offer no difficulty. At 12 miles the 2 villages of Akbar and Akhtar formerly known as Rasul Khan and Mulla Amir.

Camping ground.—For at least 2 infantry brigades with proportion of divisional troops.

Water.—Exists, but there is no information regarding amount.

Fuel.—In the form of small bushes (wild sage and southern wood) procurable.

Fodder.—A few hundred maunds bhusa procurable; camel grazing scarce; nil in winter.

Supplies.—A few hundred maunds unground grain available.

Khushobai river; thence track turns nearly due N. and continues so to the end of the stage.

At 8 miles Saiadan.

Camping ground.—No details.

Water.—For a division probably from 2 karezes; one near camp itself which provides ample water, the other 4 miles to the S. called Shah Karez.

Fuel.—In the form of small bushes (wild sage and southern wood) procurable.

Fodder.—Good camel grazing except in winter.

Supplies.—Practically nil.

TANDUKAI .. 12 m. Camel road passable for wheeled artillery.

32 m.

Immediately after leaving Saiadan the Khushobai stream is crossed by an easy ford; the road then turns nearly due W. over the Khushobai plain and continues in this direction to about 6 miles when it gradually veers N.W. At 9 miles the Bedak wells and halting place of the same name. Here there is—

Camping ground.—Excellent, and sufficient for 2 infantry brigades at least; some very fine willow trees in the vicinity.

Water.—For a division and more from the Bedak wells, 10 to 12 in number, wells perennial, water 7' below the surface and exceedingly pure.

Fuel.—Plentiful among the hills close at hand.

Fodder.—Abundant hariala grass except in winter; good camel grazing except in winter.

Leaving the wells the road leads N.W. and immediately crosses the Mel river not far from its source; river here fordable anywhere; at 12 miles the halting place known as Tandukai, where there is no village but an excellent *karez*.

Camping ground.—For at least 2 infantry brigades with

4 BALOL KAREZ .. 14 m. Camel road, passable for wheeled artillery.

General direction N.W. At about 8 miles the Malikiar range is crossed by the Putu-kai kotal; ascent and descent fairly easy; road good but stony. The road then leads across the Putu-kai plain and at about 12 miles reaches the first of the broken ridges which divide the Malahed range from the valley of the Arghastan and which is crossed here by the Barghana pass. At 14 miles Balol Karez about the centre of the pass.

Camping ground.—For 1 or 2 battalions near Balol Karez itself and for one infantry brigade at least near Saiyid Muhammad 1 mile to the N.

Water.—Excellent and abundant; it was calculated in 1879 that the discharge from the karez was 1 cubic foot per second (probably half that amount in the hot weather); tank for watering animals near by.

Fuel.—In the form of small bushes (wild sage and southern wood) procurable.

Fodder.—Hariala grass in great quantities except in winter; camel grazing good, scarce in the winter.

Supplies.—Nil.

At Balol Karez Route 11-A, an alternative route between New Chaman and this stage, joins this route.

5 NAO DEH (DEH- 7 m. 4 f. Camel road, passable for wheeled artillery. (3,626').

Road continues through the Barghana pass for about 2 miles when it emerges on to the Makua plain. At $2\frac{1}{2}$ miles the Makua karez is passed; water not very good. Road now becomes very easy across undulating plains.

At about 4 miles a low watershed is crossed and the valley of

ROUTE No. 11—concld.

stones between which flood water tears with great force; banks only a few feet high of conglomerate and shingle easily ramped; wheeled artillery might have to be man-handled over parts of the river bed shortly after floods; during floods the river temporarily is impassable. At $7\frac{1}{2}$ miles Deh-i-Nao, a collection of domed huts, near which a large irrigation canal runs.

Camping ground—For a division between the village and the river.

Water.—For a division from the Arghastan except in the summer and autumn, when there would only be sufficient water for 1 or 2 infantry brigades from 5 wells, 15' to 20' deep.

Fuel.—Scarce.

Fodder.—Hariala grass abundant except in winter; lucerne also procurable except in winter; bhusa to some considerable extent; excellent camel grazing except in winter.

Supplies —A few hundred maunds unground grain procurable.

6 MANDI HIS- 8 m. Camel road, easily convertible to a cart road.

Road continues N.W. over a nearly level plain; an easy march. At 8 miles Mandi Hissar (100 houses), inhabitants Nurzais and Barakzais.

Here Route 10 leading from the Zhob to Kandahar joins this route. Mandi Hissar is also the 8th stage of that route.

 $egin{array}{c} Camping \ ground.-- \ Water.-- \ Fuel.-- \ Fodder.-- \ \end{array}
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Sunnlies .-

Vide Route 10, stage 9.

ROUTE NO. 11-A.

NEW CHAMAN TO BALOL KAREZ (BARGHANA).

Viâ the Kussa pass.

63 miles.

5 stages.

Authority.—Afghan war records, 1880; native information, 1900.

Epitome.

General description.—An alternative route to the first 4 stages of Route 11. It is longer, but might be useful for cavalry protecting the flank of a march by the other route. In September 1880 the cavalry brigade of the Kabul-Kandahar Field Force returning to India partly followed this route from Kandahar. The country had then undergone three years' drought and the guides asserted that there was no water either at Bedak or Sarwar Karez. The brigade therefore made one march of 24 miles from Barghana to Mulla Mustapha. Not a drop of water was found during the whole march and the followers suffered much from thirst.

Road.—Camel road throughout could be made passable for wheeled artillery with a little labour, which is mostly required at the Kussa pass.

The following obstacles are encountered:—

- (i) The Kangasu stream in second stage; no difficulty.
- (ii) The Kadanai river in third stage; no difficulty.
- (iii) The Kussa pass in fourth stage; long and narrow defile requires clearing before being passable by wheeled artillery.
- (iv) The Fatukhel kotal in fifth stage; an easy pass.

ROUTE No. 11-A—contd.

Fodder.—Abundant grass except in winter at the second stage only; bhusa at third and fourth stages; fair to good camel grazing throughout except in winter.

Supplies.—Unground grain to an appreciable extent available at the third and fourth stages.

| No. of stage and total dis- tance. | DETAILS | S |
|------------------------------------|-----------------------------|-------------|
| $\frac{1}{9 \text{ m. 4 f.}}$ | SHER-I-OBA 9 m. 4 f. | Camel road. |

Leaving New Chaman the road leads nearly due E.; road is good though stony and slightly undulating. At $6\frac{1}{2}$ mile; the halting place Sina, at the entrance of the Boghra pass, which leads to that part of the Toba plateau known as Tobin. A good stream issues here from the Boghra ravine and affords a copious supply of water.

The present route turns due N. at Sina, thus avoiding the Boghra pass and runs northward along the base of the hills.

From Sina to the end of the stage the road is stony and crosses numerous water-courses and small ravines, trying to laden camels. At $9\frac{1}{2}$ miles cross a large water-course known as the Sher-i-Oba. On the further or right bank is an artificial water channel in which runs a strong stream, alongside which is a suitable site for a camp.

Camping ground.—For 1 infantry brigade at least.

Water.—For the above force at least from the water-course referred to.

Fuel.—Firewood tolerably abundant.

Fodder.—Good camel grazing except in winter.

Supplies.—Nil.

11 4 C C 1 - 1

ROUTE No. 11-A—contd.

encampment. At about 8 miles the Kanjasu stream is crossed; no difficulty. At $11\frac{1}{2}$ miles a few Nurzai hamlets known as Akhtar Khan, $1\frac{1}{2}$ miles S.W. of the Margha Chaman.

Camping ground.—It or 1 infantry brigade at least.

Water.—For the above force and more from karezes.

Fuel.—Scarce.

Fodder.—Abundant grass can be obtained except in winter from Margha Chaman.

Supplies.—Nil.

3 MULLA MUS-13 m. Camel road.
—— TAPHA.

34 m.

The road now bends sharply to the left and runs nearly due W.

At 2 miles the dry channel of the Kadanai is crossed; no difficulty. At 3 miles the camping ground where Sir Hugh Gough's cavalry brigade * of the Kabul-Kandahar Field Force camped on the 25th September 1880. At 6 miles the Nurzai village of Shah Pasand. From here a camel track runs due N. through the Durani country to the villages in the upper reaches of the Arghastan river.

The road now gradually veers N.W. The country is a wide open plain in which are various hamlets and camps of Nurzais; but the former being mere groups of mud huts without trees are invisible in the bare plain at a short distance. There is some cultivation watered by karezes, and a few dry beds of water-courses are crossed; the road is good all the way. About $1\frac{1}{2}$ mile; before reaching Mulla Mustapha, the road passes 1 mile N. of Saiadan, stage 2 of Route 11. At 13 miles Mulla Mustapha, a group of Nurzai hamlets on the right bank of the Khushobai stream which is crossed just before camp.

Camping ground.—For 1 or 2 infantry brigades on a site

ROUTE No. 11-A—contd.

Fuel.—Scarce.

Fodder.—A few hundred maunds bhusa procurable; fair camel grazing except in winter.

Supplies.—A few hundred maunds unground barley normally procurable.

4 SARWAR 15 m. Camel road.

--- KAREZ.

49 m.

Road now leads N. for 3 miles over the Khushobai plain, when it leads slightly to the N.W. and runs through low hills. At about 8 miles the Hadda hills are reached, through which the Kussa pass, a long and narrow defile, winds in a northerly direction; the defile is about 200× wide, road indifferent, and pass would require clearing before being practicable for wheeled artillery. The pass is left at 14 miles and the road then runs due N. over undulating country to the camp which is on the Mulla plain just N. of the Barakzai village of Sarwar Khan.

Camping ground.—It or a division on the plain.

Water.—Excellent and sufficient for the above force from several karezes.

Fuel.—Scarce.

Fodder.—Bhusa to an appreciable extent; camel grazing good except in winter.

Supplies.—Unground grain to an appreciable extent normally procurable.

BALOL KAREZ . . 14 m." Camel road. (BARGHANA).

63 m.

Leaving Sarwar Karez the road bends sharply to the W. and maintains this direction throughout the stage. For the first 7 miles the road, which is excellent, traverses the Malhed plain. Between the 7th and 8th miles the Fatukhel kotal is crossed, an easy pass over a range of hills dividing the Malhed

ROUTE No. 11-A—concld.

Barghana or Balol karez can also be reached from Mulla Mustapha by a direct road branching to the left (N.W.), after passing the first rise from the Kushobai valley, at 1 mile from Mulla Mustapha camp N. of the hamlets. Thence by narrow difficult path through a long ridge, after which the route lies nearly due W. over a plain dotted with low hills and at about 8 miles passes near and S. of a steep rocky cliff, the end of the Hadda range. Here in winter may be found a nomad camp, and the locality is apparently known as Bedak, although the Bedak of Route 11 is 3 miles, or so, S.W. in a small valley. Tandukai on the same route is probably 3 or 4 miles due W. There are also wells a mile or two W. of the road.

After passing the end of Hadda the road leads N.W. over an open, bare plain for about 10 miles and Route 11 comes in at or near the Barghana kotal. Thence to Barghana 6 miles; total from Mulla Mustapha 24 miles. On the whole the road is good and it is probable the march might be broken at the wells above mentioned or at Tandukai.

ROUTE NO. 12.

NEW CHAMAN TO KANDAHAR.

Viâ Mel Karez.

 $71\frac{1}{4}$ miles.

6 stages.

Authority.—Afghan war records, 1879-80; O'Sullivan, 1886; General Officer Commanding, Quetta, 1892; native information, 1905-06; native information, 1912

The following obstacles are encountered:—

(i) The Kadanai river in the first stage; usually no difficulty, but it has been known to be unfordable for 2 or 3 days after heavy rain.

(ii) The Kushobai river in the second stage; no difficulty.

(iii) The Mel river in the third stage; no difficulty.

(iv) The Arghastan river in the fifth stage; temporarily impassable after heavy floods.

(v) The Tarnak river in the last stage; difficult after heavy

rain.

Route open throughout the year.

Camping ground.—For a division at all stages.

Water.—For a division at all stages, but at stages 1 and 2 supply is liable to be intercepted.

Fuel.—Scarce throughout.

Fodder.—Bhusa at stages 1, 2, 4, and 5; camel grazing fair

to good except in winter, when there is practically none.

Supplies.—Afghan Government granary at Spin Baldak $5\frac{1}{2}$ miles from Chaman; unground grain to a limited extent at stages 1, 2, 4 and 5; 300 to 500 sheep at stages 3 and 5.

For supplies, etc., at Kandahar, vide stage 6.

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WAT THANA .. 10 m. Disused cart road, with slight repair passable for carts again.

General direction N.W. At $5\frac{1}{2}$ miles, on the right of the road, the well-known fort at the foot of the western spur of the Spin Baldak hill (4,230'). Fort known as Kala-i-Jadidi; also known as Kala-i-Baldak, so named after the hill; rectangular in shape with a double line of walls, both with 2 tiers of loop-

miles distant, but this supply also is precarious. Granary inside the fort in which is stored Government revenue grain from adjoining districts.

Western spur of the Spin Baldak hill is crowned by 2 towers, distant about 350× from the centre of the fort and intended to be connected with its eastern face by three high loop-holed walls, which, however, are still uncompleted.

Adjoining the fort is a bazar with two rows of shops, a collection of houses, the residences of officials and Achakzais, a caravansarai 120× square, mud building with mosque in centre and a deep well just outside, and a Government garden 400× square surrounded by high walls with a tower at each corner. Here there is—

Camping ground.—For a division on the open plain N.W. of the fort.

Water.—Probably only sufficient for 1 or 2 infantry brigades from the well outside the sarai and the water channel referred to above.

Fue'.—Scarce.

Fodder.—Bhusa to an appreciable extent could be collected from the surrounding Achakzai villages.

Supplies.—Unground wheat and barley to a very large extent, stored in the granary inside the fort.

At 7 miles 3 furlongs cross the first branch of the Kadanai river and at 9 miles 3 furlongs the second or main branch; the river bed here is about 500× broad; the stream ordinarily narrow and from 1' to 2' deep, and sometimes dry in the summer, but it has been known to be unfordable for 2 or 3 days after heavy rain. At 10 miles the small khasadar post now known as Wat thana.

Camping ground.—For a division.

Water.—Sufficient for the requirements of the above force could be obtained by artificial channels from the Kadanai whose perennial stream, however, is diverted near the Murgha Chaman,

Supplies.—Unground grain to an appreciable extent procurable from the adjoining villages.

DABRAI .. 9 m. 6 f. Disused cart road, with slight repair passable for carts again.

Road continues N.W. At 1 mile, the third channel of the Kadanai is crossed; no difficulty. At 3 miles 3 furlongs road crosses the broad gap in the Gatar or Ganti hills; at 4 miles 3 furlongs the present route bends to the left, but another track leads straight on and joins Route 11 just N. of Tandukai Karez (stage 3), 14 miles distant.

At 7 miles cross an insignificant channel of the Kushobai and at 9 miles the main stream; no difficulties. At 9\frac{3}{4} miles the halting place known as Dabrai; usual pattern sarai and a small khasadar post.

Camping ground.—For a division W. of the Kushobai stream; camp commanded by low hills 1,000× distant to the S. W.

Water.—For the above force from this stream which, however, is liable to be cut off, and from two karezes, whose capacity is not great. Construction of tanks would be necessary before animals in any numbers could be watered. One well near camp affording sufficient water for a battalion.

Fuel.—Scarce.

Fodder.—Bhusa procurable to some extent from the Nurzai villages to the E.; fair camel grazing except in winter.

Supplies.—Unground grain to some extent from these Nurzai villages.

3 MELKAREZ .. 12 m. Disused cart road, with slight repair passable for carts

again.

7. ... 77.717

Mel river is at this point, $\frac{1}{4}$ mile N. of Mel Manda village. The crossing here is far easier than at the place where the Dori river Route (Route 13) crosses this same stream 5 miles to the S. The road now gradually ascends to Mel Karez reached at 12 miles. The khasa lar post is $\frac{1}{2}$ mile to the left of the road; outer walls in good order, but the post has fallen somewhat into disrepair (1905); fortified sarai adjoining the road completed in 1905; inhabitants in this vicinity are Kakozais.

Camping ground.—For a division on an open plain; soil

gravelly.

Water.—For the above force and more from a good karez and the Mel river $1\frac{1}{2}$ miles distant, where all animals would be watered.

Fue!.—Scarce.

Fodder.—Good camel grazing except in winter.

Supplies.—No unground grain, but sheep and goats procurable in large numbers; also transport camels.

4 ABDUL RAHMAN 14 m. Disused cart road; with slight repair passable for carts.

Road continues N.W. At 2 miles 5 furlongs, cross the crest of the Ghlo kotal, a pass over a small range of hills in otherwise open country; at $3\frac{1}{2}$ miles the road forks, both branches leading to Abdul Rahman, but that urning abruptly to the right is the cart oad which now runs t rough stony, undulating, open country. At 10 miles 3 furlongs he ruins of Saifulla village. The whol neighbourhood here is known as Takhtapul. The last 2 miles of this stage is over heavy surface said. At 14 miles Abbul Rahman, where there is a fortified sarai ompleted in 1906, an old post with a customs and passport official, also

5 MANDI HISSAR.. 15 m. Disused cart road; with slight repair passabl for carts.

Road continues N.W. At 2 miles cross a low easy kotal; at 4 miles the large domed villa e of D h-i-Haji, most prosperous in 1880 and from which supplies could always be obtained, but reported in 1905 as being deserted and falling into ruin, owing to the inhabitants having migrated through being troubled by travellers on the main road. The water here is plentiful owing to irrig tion streams but of indifferent quality.

Deh-i-Haji is the 4th stage on the Dori river Route which joins the present route at this point coming in from the S. The two routes are contiguous for the next mile and a half, but no difficulty is anticipated in keeping the two routes separate as the country is an open, hard, stony plain; at $5\frac{1}{2}$ miles the road bifurcates, the present route diverging to the right, while Route 13 leads straight on to Khushab and thence to Kandahar.

At 7 miles reach the left bank of the Arghastan; river here has a shallow bed about 200× wide with a fair flow in the winter and spring of brackish water about 1' deep; generally quite dry in the summer and autumn, but after heavy rain river is temporarily impassable owing to floods. At 8 miles the Barakzai village of Dahi on the right of the road and at 11 miles the small village of Kalacha-i-Muhammad Jan. At 15 miles Mandi Hissar (100 houses), inhabitants Nurzais and Barakzais; fortified sarai was built here in 1906.

Camping ground.—For a division, though limits are liable to be restricted owing to cultivation; camping ground in 1879-80 was protected by a walled, defensible enclosure and ditch, which was in good order in 1853, but this camp was only sufficient for 2 brigades.

Water.—For the above force from karezes near camp and from the Tarnak river 2 miles N. of camp, where animals could

6 KANDAHAR .. 10 m. 6 f. Disused cart road, with slight repair passable for carts again.

Road now leads N.W. direct for Kandahar. For the first 4 miles country is hilly, thence to the end of the stage the road leads over a much irrigated plain with soft soil which would cause wheeled artillery considerable trouble.

At 1 mile 3 furlongs cross the Tarnak river; river bed here 100× broad; stream shallow and easily fordable except after heavy rains, river bed tortuous, but passable by carts. At 2 miles 7 furlongs reach the broad, flat crest of the Shorandam kotal, thence steady descent and reach the plain at 4 miles.

At 6 miles 1 furlong cross dry bed of Shorad river, passable by carts; at 8 miles 7 furlongs pass a ziarat on the right, where the Kalat-i-Ghilzai road comes in from the E. At 8 miles 7 furlongs the suburb of Deh Khwaja on the left of the road and extending for nearly $\frac{1}{2}$ mile.

The road leads straight to the Bar Durani Gate, but there is a broad track all round the walls outside; the Idgah or north gate is reached at $11\frac{1}{2}$ miles, and the centre of the former British cantonment N.W. of the town at 12 miles.

A new garden called Manzil Bagh was built in 1893 to the right of the road, just before the village of Deh Khosak is reached, and about one mile from the city, this forms a cool residence; thence direct to the Idgah a good road, lined with trees, has been made. Just outside the Bar Durani Gate a large and commodious caravansarai for storage of wool and other trade products going to India, has been built. The enclosure is quadrilateral, with a row of 50 double domes on the N. and S. faces and would accommodate one or two battalions.

KANDAHAR (3,462'). Population 31,500. Garrison (1912) 4 batteries, 1\frac{1}{4} regiments cavalry, 3 battalions infantry. City situated on level plain between the Tarnak and Arghandab rivers, but

The defences consist of an earthen rampart having an average command of 22' and an average thickness of 20' at the bottom and 10' to 12' at the top. Its outer face is continued to form a parapet about 7' high and 2' or 3' thick, with a double tier of loopholes. The rampart is flanked by circular towers placed at distances 200' to 300' apart. The ditch varies both in breadth and depth, but it is roughly 25' broad and 10' deep. There are 6 gateways one on each of the N. and S. faces and 2 on each of the E. and W. faces, defended by 6 double bastions with 4 large circular towers at the angles.

The citadel is situated on the N. side and occupies the greater part of an open space 1,400' square. The treasury, gun park and Governor's residence are inside it. The city is surrounded on all sides by orchards, graveyards and villages; the field of fire from the ramparts is, therefore, much interrupted and there is good cover for an assaulting force.

The citadel and city generally are in much the same state as when left by the British. The walls seem in fair repair, and the roads made along the S. and W. faces have been well kept up and are lined with trees on either side. The cantonments seem in fairly good repair and are occupied by the Afghan garrison; the hospital, being unoccupied, seems to have fallen in places and will require considerable repair, but the majority of the barracks can apparently be re-occupied after a little cleaning.

The garden houses of Sirdars Amir Khan, Mir Afzal Khan, and Rahim Dil Khan formerly occupied by the General Officer Commanding, the Resident, and the Engineers, respectively, seem in pretty much the same state, and could be re-occupied again at once.

Camping ground.—For a very large force, 2 or 3 divisions at least on the plains around. In 1879-80 the British cantonments were to the N. of the city.

Water.—For a force of any size from the Arghandab and

Supplies.—Amount of grain available in Kandahar can be reckoned at something between 200,000 and 500,000 maunds of which $\frac{1}{5}$ is barley; fruits of all kinds in abundance.

ROUTE NO. 12-A.

GATAI TO TANDUKAI KAREZ.

20 miles.

2 stages.

Authority.—Native information, 1892.

Epitome.

General description.—A connecting route between the 2 through Routes 11 and 12.

Road.—Camel road practicable for wheeled artillery.

A small kotal which presents no difficulty met with in the second stage is the only obstacle encountered.

Route open throughout the year.

Camping ground.—For at least one infantry brigade with proportion of divisional troops at the intermediate stage.

Water.—Sufficient for that force at that stage.

Fuel.—Scarce.

Fodder,—Hariala grass plentiful at the intermediate stage; good camel grazing throughout, except in winter.

Supplies.—Nil at the intermediate stage.

| No. | | | | |
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ROUTE No. 12-A—concld.

the present route continues N. W., while the old cart road bends to the W. Between the 9th and 10th miles cross two arms of the Kushobai stream, beyond the second of which is camp.

Camping ground.—For at least 1 infantry brigade with proportion of divisional troops.

Water.—For the above force from karezes.

Fuel.—Scarce.

Fodder.—Hariala grass plentiful; good camel grazing except in winter.

Supplies.—Nil.

TANDUKAI KAREZ .. 10 m. Camel road, practicable for wheeled artillery.

General direction N. W. For the first 3 miles the road runs across a gentle, sloping plain at the foot of the hills with a rise of about 150'. Thence to $5\frac{1}{2}$ miles the road follows the course of the Surkhab Manda to a small kotal; ascent in this portion about 300', of which 100' is in the last quarter of a mile near the There is no real difficulty in this part of the road. It is a little rough for guns in places, and the ascent of the kotal would be somewhat troublesome for artillery. The valley is fairly open everywhere between low hills. The worst portion of the road can be avoided by a détour, said to be about 12 miles longer, and a good road. It leaves the bed of the Surkhab Manda at 45 miles from Kushobai, and rejoins the road just beyond the kotal. The descent from the kotal is easy, but somewhat rocky, falling about 150' in 1 mile, whence the road debouches on an open undulating plain called Bedak, 2 or 3 miles across which are the Bedak wells

Here Route 11 is joined and followed to Tandukai Karez

ROUTE NO. 13.

NEW CHAMAN TO KANDAHAR.

Viâ the Dori river.

66 miles.

6 stages.

Authority.—2nd Afghan war records, 1879-80; native information, 1905; native information, 1910.

Epitome.

description.—One of the 3 routes from the railhead at New Chaman to Kandahar. The major portion of this route lies in the Dori valley, following the right bank of that river, and is particularly easy. It forms the best alignment for a railway from New Chaman to Kandahar. The section of this route from Shah Pasand stage 2 to Kandahar was followed by the 2nd Division of the Kandahar Field Force in 1879. Country generally open and passable by all arms.

Road.—Camel road passable by wheeled artillery throughout; sandy in places; with little labour could be made passable

for carts.

The following obstacles are encountered:

(i) The Kadanai, Kushobai and Mel Manda streams in the 1st and 2nd and 3rd stages respectively; no difficulties.

(ii) The Kurkura kotal in the 3rd stage; ascent and descent

easy.

- (iii) The Arghastan river in the 5th stage; liable to be temporarily impassable after floods which occur in winter and spring.
- (iv) The Tarnak river in the 6th stage; no difficulty.

Route open throughout the year.

Camping ground.—For a division at stages 1, 3 and 4; for 1 infantry brigade at stage 2; no details regarding stage 5. Water.—For a division at all stages with the following

Fodder.—Bhusa to an appreciable extent at stages 2, 3, 4 and 5; camel grazing throughout, except in winter.

Supplies.—A few hundred maunds unground wheat and

barley procurable at stages 2, 3, 4 and 5.

For supplies, etc., at Kandahar vide Route 12.

| No. of stage and total dis- tance. | | | | DETAILS. |
|------------------------------------|------|-------|-------|--|
| 1 12 m. | KALA | MALIK | GHAZI | 12 m.—Camel road passable for wheeled artillery. |

Leaving the railhead at New Chaman the road runs due W. across open country. At 8 miles pass the hill Tor Baldak (4,312'), half mile S. of the road. At 9½ miles cross the Kadanai stream, which comes in here from the N. W. by an easy ford. Road then follows the right bank of this stream to the end of the stage reached at 12 miles.

Camping ground.—For a division.

Water.—From 11 wells and a channel leading from a karez; supply calculated to be sufficient for one infantry brigade; for a division for half the year from the Kadanai $1\frac{1}{2}$ miles distant.

 $\left. egin{array}{ll} Fuel.- \\ Fodder.- \\ Supplies.- \end{array}
ight\} \hspace{0.5cm} ext{No information.}$

2 SHAH PASAND .. 6 m. Camel road passable for wheeled artillery.

Road follows the right bank of the Kadanai, general direction W., country open. At 4 miles pass the Nurzai village of Fathulla on the left bank of the river; village consists of a collection of democracied houses surrounded by mud walls, with a mud fort;

Kadanai, here crossed by an easy ford; normal depth of stream about 2'; stream always fordable even during spates; below the junction of these 2 streams the river is known as the Dori river till it joins the Arghastan some 18 miles due S. of Kandahar. At 6 miles the Gurak Nurzai village of Shah Pasand on the right bank of the Dori river.

Camping ground.—For at least 1 infantry brigade with proportion of divisional troops.

Water.—For a division and more except during August and September, from the Dori river, hal a mile S. of camp. In August and September from wells in river bed for an infantry brigade at least, transport animals would be watered at Hauz Robat tank I mile due N.

Fuel.—Abundant; there are a quantity of tamarisk trees in the river bed and elsewhere, also southern wood is plentiful.

Fodder.—Bhusa procurable to a limited extent; camel grazing abundant except in winter.

Supplies.—A limited amount of unground grain procurable. The following is the description of the Dori river between Shah Pasand and Abdul Rahman:—bank to bank average width 150', channel normally 10' to 12' wide, 1' deep; in January, February and March 30' to 40' wide, 3' deep; greater dimensions after floods which are rare and never last more than 24 hours. Dry during August and September; sandy bottom with occasional boulders; height of banks vary from 15' to 30' and are steep; there are no bridges nor boats and the current is not rapid. The best known fords are:—

- (1) Kandahar ford near Shah Pasand.
- (2) The Matal Mehrab.
- (3) The Anbar.
- (4) The Bolak, in the vicinity of which there is jungle.
- (5) The Muhammad Shah.

3 CAMP SAIFUDIN: 15 m. Camel road passable for wheeled artillery.

33 m.

Road here temporarily leaves the banks of the Dori river and ascends gradually towards the hills; general direction N. W.

At 1 mile pass a well, about 30' deep, in which there is abundance of water. At 3 miles reach a watershed. Thence a gentle descent to the Mel valley, which runs up a considerable distance N. E. and is about 5 miles wide. Here it presents an appearance very similar to the hard and level portions of the country crossed on the last march. To the left the Dori and sand desert close the valley. At about 10 miles cross the Manda, or water-course of Mel, about 4½ miles from the camping ground of Mel Manda on the main road, and 5 miles S. W. of Thence ascend gradually to the Kurkura kotal, Mel Karez. another watershed from which the road commences to descend into the tract called Takhtapul. Here there is half a mile of rough broken ground, with hills close to the road on both sides. This bit is difficult for artillery. Issuing from the defile, the road gains the right bank of the Dori, which has all the way been running parallel on the left, and turns along it, nearly due N. The country is an undulating plain, intersected by numerous water-courses. These, and an occasional strip of sand, delay the march of artillery. At 2 miles from the Kurkura kotal reach camping ground in a broad and level plain on the right bank of the river.

The camp derives its name from a Nurzai village on the opposite bank of the river. Mel Karez stage 3 of Route 12, the old cart road to Kandahar, is about 5 miles due E, of this camp.

Camping ground.—For a division on the plain.

Water.—For the above force and more from the Dori river,

4 DEH-I-HAJI.. 14 m. Camel road practicable for wheeled artillery.

Road continues N. W. along the right bank of the Dori river and now enters the district known as Takhtapul. The present route and the old cart road (Route 12) gradually converge throughout this stage, and at 10 miles opposite Abdul Rahman post (stage 4 of that route) they are only half a mile apart. At about 11 miles the Dori river makes a sharp bend to the W., and the present route ceases to follow its bank. The road then runs practically side by side with Route 12 to the end of the stage reached at 14 miles.*

Deh-i-Haji, a large domed village, most prosperous in 1880 and from which supplies could always be obtained, but reported in 1905 as being deserted and falling into ruins, owing to the inhabitants having migrated on account of being troubled by travellers on the main road.

Camping ground.—For a division on the plain.

Water.—Probably sufficient for the above force from irrigation channels; the water, however, is not very good, being somewhat saline.

Fuel.—Plentiful; wild sage bushes and southern wood abound.

Fodder.—Bhusa to an appreciable extent procurable; camel grazing good except in winter.

Supplies.—Unground wheat and barley to an appreciable extent procurable.

5 KHUSHAB 10 m. Camel road passable (3,484'). for wheeled artillery.

The road runs for 1½ miles N. W. contiguous with Route 12

Dahi and so on to Mandi Hissar and Kandahar. This route, though the longest, is much the best, but if, as is most probable, this road is used only to relieve the main road, any interference with the latter will be undesirable, and it will be necessary to take the kafila road by Khushab.

This leads straight on. At about 3 miles reach the Arghastan which has a broad, stony bed about 300 yards across. In winter the water ordinarily runs in several channels not more than a foot deep. The banks are low, and the river offers no obstacle to the passage of troops with artillery. The season of floods is in winter and early spring. In summer the river may be perfectly dry. Thence straight on, over level open plain, in which large stretches of cultivable land alternate with barren stony tracts, slightly undulating. There are many villages to the W., but none near the road. At 10 miles the populous Nurzai village of Khushab.

Camping ground.—No information.

Water.—For a division from several irrigation channels. Fuel.—Scarce.

Fodder.—Bhusa and lucerne (in season) to an appreciable extent; good camel grazing except in winter.

Supplies.—Unground barley to an appreciable extent.

6 KANDAHAR .. 9 m. Camel road passable (3,462'). for wheeled artillery 66 m.

Road continues N. W. towards a low kotal in the hills. At about 2 miles it crosses a channel of the Tarnak, which is usually dry or nearly so. It then ascends about a mile to the crest of the kotal. The road is stony, and for 100 yards is steep. Descend from the kotal to the plain of Kandahar, which is here thickly studded with villages, surrounded by high-walled enclosures, orchards, etc. Numerous deep water-cuts cross the

This march is practicable for artillery, but decidedly difficult.

 $egin{array}{c} Camping \ ground.-- \ Water.-- \ Fuel.-- \ Fodder.-- \ Supplies.-- \end{array}
ightarrow Vide \ Route \ 12 \ Stage \ 6.$

ROUTE NO. 14.

NUSHKI TO KANDAHAR.

Viâ Jat Poti and Tarabaz.

142 miles.

11 stages.

Authority.—General Officer Commanding, Quetta District, 1900; Hennell from native information, 1881; Roome from native information, 1896.

Epitome.

General description.—A direct, through route from the railhead at Nushki to Kandahar. After leaving Dak Nawar, stage 4, the great Registan desert is entered and traversed till the Dori river is reached at the end of stage 10.

Road.—Camel road throughout. The following obstacles are encountered:—

- (i) The Registan desert between stages 4 and 10; impassable between May and September for all but small parties, preferably mounted on camels.
- (ii) The Dori river in stage 10; impassable during spring floods for 2 or 3 days at a time.

Water —For 1 infantry brigade at least at the first 3 stages; thence to the Dori river, stage 10, only sufficient for 1 infantry brigade between September and May, and possibly for a battalion in the remaining months by digging wells; for a division at stage 11.

Fuel.—Firewood of tamarisk trees and a certain amount of scrub available throughout the route

Fodder.—Grass to a limited extent immediately after rain from stages 4 to 9; bhusa to an appreciable extent at stages 3 and 10; fair camel grazing throughout.

Supplies.—Unground wheat and barley to an appreciable extent at stages 3 and 10. For supplies, etc., at Kandahar see Route 12, stage 6.

| No. of stage and total dis- t-nce. | DETAILS. | | | | |
|------------------------------------|---|-------|-------------|--|--|
| 1 17 m. | MEHRAB NAWAR (5IAH SANG.) (3,150'). | 17 m. | Camel road. | | |

Leaving the railhead at Nushki the road, which is a well marked track, leads almost due N., partly over pat and partly over a stony daman; going somewhat difficult on account of the numerous small nalas which cross the road at right angles. Country open throughout the stage. At 17 miles the camping ground sometimes known as Siah Sang opposite the rank made by Mehrab Khan, a Baluch. There is no other water en route. This stage is identical with stage 1, Route 131, Routes in Northern Baluchistan, 1910.

Camping ground.—On an open sandy plain for a division, if necessary.

Was a Francisco de la la francisco de la franc

2 SAHIBZADA .. 11 m. Camel road, (3,186').

28 m.

Road continues N., and maintains this direction throughout the stage. Road is good and fairly level the whole way; country generally open. At 11 miles Sahibzada (60 houses), inhabitants Baluchis; houses are mere wattle huts smeared over with a thin layer of mud. About 4 mile to the S. W. is the Baluch village of Shah Muhammad, similar generally to Sahibzada.

Camping ground.—For a division, if necessary, on the open plain.

Water.—For one infantry brigade at least from several tanks.

Fuel.—Fairly abundant; there are tamarisk trees and a certain amount of scrub in the vicinity.

Fodder.—A small quantity of bhusa obtainable, but nothing appreciable; good camel grazing.

Supplies.—Nothing appreciable.

3 JAT POTI .. 14 m. Camel road. (3,150').

42 m.

Road continues N. and maintains this direction throughout. Good and easy going all the way over pat. At 14 miles the few ruins and halting place known as Jat Poti.

Camping ground.—For a division, if necessary, on the sandy plain W. of the irrigation channel.

Water.—For one infantry brigade at least from the irrigation channels $\frac{1}{4}$ mile S. of camp; water also from November to April in the irrigation channels E. of camp.

There are also several wells about 150' deep which could be cleared without much difficulty.

Fuel.—Fairly plentiful.

Fodder.—Bhusa to an appreciable extent obtainable from the

Route 14-F., from Saiad Bus. From Jat Poti Route 14-E, leads to Shah Pasand.

4 DAK NAWAR .. 15. m. Camel road.

57 m.

Road runs due N., across a sandy desert. Achakzai country. At 15 miles the halting place and wells known as Dak Nawar.

Camping ground.—For a division or more on the sandy plain.

Water.—From the nawars; probably sufficient for one infantry brigade from September to May, and for about 1 battalion for the remaining months when wells might have to be dug.

Fuel.—Firewood procurable.

Fodder.—Grass procurable; fair camel grazing. Supplies.—Nil.

5 ABU CHAH .. 8 m. Camel road.

65 m.

Road runs N.E. for 4 miles, then N. W., to Abu Chah which is due N., of Dak Nawar. At the commencement of this stage the road enters the eastern fringe of the great Registan desert and crosses it till the Dori river is reached in stage 10. The Registan which signifies the "country of sand" is the name given to the great desert which stretches eastward from Sistan and the Persian frontier. It is a vast expanse of ridges and hillocks of loose red sand and is of considerably greater elevation than the adjacent alluvial plains. on Shorawak in a long line of sand-bluffs, touches the end of the Khwaja Amran to the N. of that district, and, sweeping round north-westwards across the end of the Kadanai valley, follows the line of the Dori and then of the Tarnak until the latter falls into the Helmand. The desert is a most important strategical feature, forming as it does what is believed to be an impagable barrier on the SW of Kandahar

6 KHWAJA GIAN NAWAR: 14 m. Camel road.

79 m.

Road leads N. W. through the sandy desert. The following nawars are passed during the stage. The Shakar nawar at 2 miles, the Zaz nawar at $3\frac{1}{2}$ miles, the Yaltaz nawar at 6 miles, the Matunki nawar at 9 miles and the Gharlan nawar at 11 miles, in all of which water would be found from September to May.

Camping ground — For a force of any size.

Water.—From the nawars; probably sufficient for one infantry brigade from September to May and for about 1 battalion for the remaining months when wells might have to be dug.

Fuel.—Firewood procurable.

Fodder.—Grass procurable. Fair camel grazing. Supplies.—Nil.

7 TONGAI

12 m. Camel road.

91 m.

The Nurzai country is now entered. The road leads Nacross the sandy desert. The Jado, Shahid and Khalil nawars are passed at 6, 8 and 10 miles, respectively, in all of which water would be found from September to May. At 12 miles the halting place known as Tongai reached, near which is the Gat Tarak nawar.

Camping ground.—For a force of any size.

Water.—For an infantry brigade from a number of wells, also from the Gat Tarak nawar.

Fuel.—Firewood procurable.

Fodder.—Grass procurable; fair camel grazing. Supplies,—Nil.

8 SAR NAWAR .. 8 m. Camel road.

Fuel.—Firewood procurable.
Fodder.—Grass procurable; fair camel grazing.
Supplies.—Nil.

9 TARABAZ .. 14 m. Camel road.

113 m.

Road continues N. W. through a sandy desert. At 14 miles Tarabaz.

Camping ground.—For a force of any size.

Water.—For 1 infantry brigade from a number of wells. Fuel.—Firewood procurable.

Fodder.—Grass procurable; fair camel grazing. Supplies.—Nil.

10 DORI RIVER .. 15 m. Camel road.

128 m.

Road runs N. W., over a sandy desert. At about 14 miles the Dori river is crossed about half mile W. of its junction with the Arghastan. At this point the river bed is 200' wide, the channel has an average width of 50' and water is of an average depth of $2\frac{1}{2}$ '. During the spring floods the river here is impassable for 2 and 3 days at a time. At 15 miles the camping ground flanked on the W. by the Arghastan river and on the S. by the Dori river.

Camping ground.—For a division.

Water.—For the above force and more from the 2 rivers referred to.

Fuel.—No details.

Fodder.—An appreciable amount of bhusa could certainly be collected from the surrounding villages; fair camel grazing.

Supplies.—An appreciable amount of unground wheat and barley procurable from the surrounding villages.

channel 90', average depth 2' to 3', river easily fordable except after heavy rains. At 10 miles the Durani villages of Balada and Karezak on the right and left of the road respectively. At 14 miles Kandahar.

Camping ground.—
Water.—

Fuel.—

Fodder.—

Supplies.—

Vide Route 12, stage 6.

ROUTE NO. 14-A.

SAHIBZADA TO SPINAKHULA.

Viâ the Band pass.

33 miles.

3 stages.

Authority.—Native information, 1900.

Epitome.

General description.—A connecting route running from stage 2 of Route 14, the through route from Nushki to Kandahar, to stage 1 of branch Route 14-E.

Road.—Camel road throughout. The Band pass in the third stage is the only obstacle encountered; gradient not steep, but the road is rough and would be better for clearing.

Route open throughout the year.

Camping grounds.—For 1 infantry brigade at both intermediate stages.

Water.—For one infantry brigade, at least, at both intermediate stages.

Fuel.—Scarce throughout.

Fodder.—Good camel grazing throughout.

Supplies.—A few hundred maunds of unground grain at both intermediate stages.

General direction N. E. Leaving Sahibzada there is a well-marked track running N. W. along the edge of the daman. At 4 miles the Barechi village of Samazai; at 6 miles pass the Mir Ali ziarat and at $8\frac{1}{2}$ miles the Shirani Barechi village of Shiranrai on the bank of the stream. At 12 miles Putla Khan (70 houses; inhabitants Shirani Barechis) about 1 mile to the W. of the left bank of Lora river. In the village are three trees which form a landmark in the treeless level plain.

Camping ground.—For one infantry brigade at least, probably sufficient room for two.

Water.—For the above force and more from irrigation channels.

Fuel.—Scarce.

Fodder.—Good camel grazing.

Supplies.—A few hundred maunds of unground grain normally available.

At Putla Khan, Route 14-C., from Anjirgai to Jat Poti crosses this route.

2 PAIN KHAN .. 11 m. Camel road.

23 m. (IN POTI) (3,300').

General direction nearly due N. The road is a good track over cultivated, alluvial soil. At 4 miles, the hamlet of Pir Muhammad Karez to the right of the road at the foot of low hills. Thence across the dry and stony bed of the Lora river which here is of considerable breadth, but the banks are not high. At 7 miles the road passes through a gap in a high range of hills, called Tang or Siah, which terminate in a semi-isolated peak on the plain, the gap being to the S. of this peak. At 11 miles Pain Khan at the foot of some sand hills; inhabitants, Badalzai Barechis.

Camping ground.—For 1 infantry brigade W. of the village.

ROUTE No. 14-A—concld.

3 SPINAKHULA .. 10 m. Camel road. (3,590').

33 m.

General direction N. The track now leads through low undulations of loose sand thickly sprinkled with bushes; these ridges increase in elevation towards the S., and small isolated peaks and ridges of rocks stand up through the sand, some of which are close to the road. At about 2 miles a sand ridge is reached which commands an extensive view over the cultivated Shorawak plain. At 4 miles a track leads S. W. to the village of Amunzai; at 5 miles, the tower in the village of Ahmad Khan is visible over the sand hills I mile W. of the road and near by is the ruined fort of Murad Khan. Immediately afterwards the road gradually rises to the Band or Chawal pass, which consists of a gap about 200× wide, where the Khurma hills overlap, but do not touch. The gradient is not steep, but the road is rough. Beyond the pass the road emerges on to an open plain, then across low sand ridges between the 8th, and 9th miles, and finally the track follows the deep bed of a nala for the last mile to Spinakhula, reached at 10 miles.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 14-E, stage 1.

ROUTE No. 14-B.

ILTAZ KAREZ TO JAT POTI.

Viâ the Get pass.

25 miles.

2 stages.

Road.—Camel road throughout.

The following obstacles are met with:—

(i) In the 1st stage the Wali or Get pass (5,900'); ascent easy, descent for the first 100 yards down a steep gully just wide enough for a laden camel to pass.

(ii) In the second stage the Lora river; difficult crossing

after heavy rain.

Route open throughout the year.

Camping-ground.—For 1 infantry brigade at the intermediate stage.

Water.—Sufficient for the above force at that stage.

Fuel.—Wood generally abundant throughout

Fodder.— An appreciable amount of bhusa and unground supplies.— grain could be collected in the vicinity of Miru Khan; good camel grazing throughout.

| No. of stage and total distance. | DETAILS. | | | | | | |
|----------------------------------|---------------------|----|-------|-----------------------|--|--|--|
| 1 | MIRU KHAN (3,100'). | •• | 15 m. | Difficult camel road. | | | |
| 15 m. | | | | | | | |

General direction N. W. Leaving Iltaz Karez the hills are at once entered. They are low and almost insignificant. Road easy and ascent gradual to the crest of the Wali or Get pass, which is reached at 3 miles. Elevation 5,900'.

Descent is by a narrow and steep gully for the first 100 yards when the bottom of a ravine is reached. It is only just wide enough to allow a laden camel to pass, and the hills rise sharply on either hand. The bed of the *nala* is of rough slate rock, and the gradient of descent very considerable. At half a mile from the crest of the pass the ravine is 20× wide; the bottom is of fairly smooth slaty shingle, and gradient of descent about 1 in 15.

ROUTE No. 14-B—concld.

After running for a short distance parallel to the ridge, the water-course turns sharply to the right, and escapes through it by a short but narrow gorge. At 12 miles the road gains the open country. At 15 miles the Shirani Barechi village of Miru Khan (70 houses).

Camping ground.—Near the village for 1 infantry brigade

at least.

Water.—Sufficient for the above force from several irrigation channels; water slightly brackish.

Fuel.—Wood abundant.

Fodder.—Bhusa to an appreciable extent could be collected in the vicinity; good camel grazing.

Supplies.—An appreciable amount of unground grain

could be obtained in the vicinity.

At Miru Khan Route 14-A., the Shirani road through Shora-wak to Nushki crosses this route.

2 JAT POTI .. 10 m. Camel road.

25 m.

General direction N. W. At about 2 miles the Lora river is crossed. Its channel is about 200× wide and 25' deep, with perpendicular banks. It is usually dry, but a good deal of water occasionally comes down in winter after heavy rain. The current of the stream is then very swift, but the bottom is of firm sand. When dry, laden camels have no difficulty in crossing at the regular places, but to find them without delay, guides are necessary. The tall tamarisks of Jat Poti are plainly visible from the Lora bank, but the intervening plain is intersected by artificial water channels, and a good deal of land is often under irrigation. Just before reaching Jat Poti the hollow of the Dori or Lora nala has to be crossed, and this is sometimes a matter of difficulty.

Altogether this march is not an easy one for pack animals

ROUTE No. 14-C.

ANJIRGAI TO JAT POTI.

Viâ the Salwatu pass.

25 miles.

2 stages.

Authority.—Native information, 1901.

Epitome.

General description.—This route forms a portion of one of the routes from Quetta to Jat Poti. It connects at Anjirgai with Routes in Northern Baluchistan, Route 110.

Road.—Camel road.

The following obstacles are met with:—

(i) The Salwatu pass in the first stage; difficult for laden camels, though constantly crossed by them.

(ii) The Lora river in the second stage; crossing difficult after heavy rain.

Route open throughout the year.

Camping ground.—For 1 infantry brigade, possibly 2 at Putla Khan, the intermediate stage.

Water.—Sufficient for that force at Putla Khan.

Fuel.—Scarce.

Fodder.—Good camel grazing throughout.

Supplies.—A few hundred maunds unground grain normally available at Putla Khan.

| of stage and total dis- tance. | DETAILS. | | | | | | |
|---|------------|--|----|----|-----------|-------|-------|
| 1 | PUTLA KHAN | | 17 | m. | Camel | road, | but |
| | | | | | difficult | for | laden |
| 17 m. | | | | | camels | over | the |

Salwatu pass.

No.

General direction N. W. Leaving Anjirgai the road ascends the Katunki nala for about 1 mile. It then diverges to the

latter direction it is crossed by Route 14-B. On the further side of the plain is another small range, similar to that just passed; it is called Parah. An easy kotal (6 miles) gives access to the Bala (Greater) Dasht, resembling the Chuna Dasht, but twice the width. The peak of Sarlat (Chari Ting) is nearly due W. from the kotal. The whole Sarlat range from this side has a very insignificant appearance.

Descending to the plain, the road bears away to the right (a track to the Mohat pass leads nearly straight on). About half-way across the Dasht ($8\frac{1}{2}$ miles) is a small artificial tank called Shahdin talao. It contains water after rain and is a well-known place. The road now enters the hills at $10\frac{1}{2}$ miles. Just inside of the first low elevations the road to the Ushtarlar pass diverges to the right, and from near the same point the road to the Psha pass branches off in the same direction. Neither of these passes is practicable for laden camels. A road from Muhammad Khel by the Sarsham or Singband kotal also comes in about here. The Mohat pass is about 2 miles S.W., a short distance N. of Chari Ting.

Not far beyond the fork of the roads the ziarat of Pir Gali Chopal is passed on the right. It is 200 yards off the road; the path to the Ushtarlar passes close to it.

At 10 miles reach the crest of the Salwatu pass (an insignificant kotal). The descent is into a deep, narrow, and rocky ravine. For the first mile and-a-half it is decidedly a difficult road. In many places there is hardly room for an animal to pass, and occasionally slate rock occurs, which results in drops or steps of several feet. At half-a-mile below the crest, and at several places lower down there is water. Here I battalion might bivouac.

The Salwatu pass is constantly crossed by heavily laden camels, but the upper part is difficult even for mules.

All at once the narrow defile gives place to a broad ravine 40 or 50× wide at bottom and widening as it descends. Gradient

ROUTE No. 14-C—concld.

straight on into the hills. As it crosses them diagonally to the run of the spurs there are several ascents and descents, one being rather steep, but the road is good. At about 15 miles the hills are finally quitted and the track continues for 2 miles over a gentle, smooth descent to the village of Putla Khan or Zhiai in the Shirani district of Shorawak.

Putla Khan (70 houses) about 1 mile to the W. of the left bank of the Lora river. In the village are 3 trees which form a landmark in the treeless, level plain.

Camping ground.—For 1 infantry brigade at least, probably sufficient room for two.

Water.—For the above force and more from irrigation channels.

Fuel.—Scarce.

Fodder.—Good camel grazing.

Supplies.—A few hundred maunds unground grain normally available.

At Putla Khan, Route 14-A., the Shirani route through Shorawak, to Nushki crosses this route.

2 JAT POTI .. 8 m. Camel road.

27 m.

General direction N. W. At $\frac{1}{2}$ miles the Lora river is reached; channel here $250 \times$ to $300 \times$ wide with scarped sides 25' high; crossing only difficult after heavy rain; assent and descent easy for camels.

From thence a fair road across the plain pretty straight to Jat Poti, the tall tamarisks of which are plainly visible. Two small canals have to be crossed. The first is called Augir and the other Sharuwah. They are difficult for pack animals. Before reaching Jat Poti the river bed of the Dori or Lora nala has also to be crossed, in which there are several artificial water

ROUTE No. 14-D.

TANG TO JAT POTI.

33 miles.

3 stages.

Authority.—Native information, 1897 and 1902.

Epitome.

General description.—A connecting route between Routes in Northern Baluchistan, Route 86, from Gulistan post and Route 88 from Sarghari and the through Route 14; it is supposed to furnish the shortest route between Pishin and Shorawak.

Road.—Difficult road for fully laden camels for the first 2 stages, third stage much intersected by irrigation channels. The long succession of stony defiles and the continual crossing and recrossing of the Lora makes the road very wearisome.

The only obstacle encountered is the Lora river which is crossed several times; river is impassable when in flood which may happen any time in winter or spring. To be caught by a freshet in the Lora gorge would always be a serious matter. Route open throughout the year except when the Lora is in flood as just described.

Camping ground.—For one infantry brigade at least, at both intermediate camps.

Water.—For the above force and more throughout, from the Lora.

Fuel.—Abundant throughout.

1

Fodder.—Bhusa at stage 2, good camel grazing throughout. Supplies.—A few hundred maunds of grain at stage 2.

| No. of stage and total dis- | DETAILS. |
|-----------------------------|----------|
| tance. | |
| | |

MIRZA KACH .. 14 m. Difficult camel road.

are lofty and precipitous; here the defile is hardly more than 16×or 15×wide, and it continues to be narrow, winding, and enclosed by high and steep hills until it opens into Lora at 4 miles. There is a good running stream all the way which is crossed frequently.

The Lora is now descended in a general south-westerly direction through a tortuous defile averaging about 100× in width. On either hand are high and steep, but not inaccessible, hills; those on the right being spurs of Shista and Tang (Khwaja Amran range) and those on the left under-features of Sarlat. The track is usually well defined and rough marching, but the stream of the Lora is crossed continually; it is swift, shallow, and somewhat muddy; the fords in winter are from about 1 to 1½' deep, and average about 15× in width. Bottom generally firm and free from large stones, but the track must be adhered to. Patches of sand or mud to be strictly avoided. In summer the water is much decreased in volume.

At 2 miles from entering the Lora (6 miles from camp) the Shista nala comes in from the right. It looks insignificant, but gives access to a large glen running up under the main range parallel to Tang. At about 7 miles cross a plateau on the left bank, and at $7\frac{1}{2}$ miles regain the Lora by the mouth of a water-course known as the Guldara.

A halt might be made on the plateau, if desirable. Thence to Lashkar Kach (see next stage), about 9 miles.

For the remainder of the march the road continues to follow the winding defile of the Lora, as above described. At 14 miles Mirza Kach situated on a low plateau on the left bank.

Camping ground.—For 1 infantry brigade, but camp is commanded on all sides within 1,000 yards.

Water.—For the above force and more, from the Lora river,

2 SILI KACH .. 10 m. Difficult camel road.

24 m.

General direction S. W. The road continues to descend the wincing defile of the Lora, which is very much the same before. At about 2 miles pass a plateau called Lashkar Kach, which closely resembles Mirza Kach, After 3 miles the hills gradually begin to decrease in height, but the defile continues narrow until about 7 miles, when it opens into a glen of increasing width. Here the road takes to the left bank, and passes over undulating plateaux, keeping parallel to the river bed. At 9 miles the track bends due W. and Route 14-A is crossed. The halting place, reached at 10 miles, is a well-known spot, and is marked by two trees and a graveyard at the edge of the plateau.

The width of the valley here is about 2½ miles. Opposite to Sili Kach, under the hills on the right bank of the river, there is also good ground for camping on. Sili Kach is considered to mark the boundary between Achakzais and Barechis, but the real boundary of Shorawak is much higher up at the Tang junction. This march is practicable for all arms. From Sili Kach to Mir

Alam Kala is 3 miles. The road is good.

Camping ground.—For 1 or possibly 2 infantry brigades on both banks of the river.

Water.—For the above force from several canals leading from the river.

Fuel.—Wood abundant.

Fodder.—A few hundred maunds bhusa could certainly be collected in the vicinity; good camel grazing.

Supplies.—A few hundred maunds grain normally available; there are several water mills at Sili Kach on the right bank of the stream.

ROUTE No. 14-D—concld.

At least one large irrigation cut has to be crossed at or near the gap. There is then a tolerably straight track over the plain to Jat Poti, keeping to the N. of the main cut and of the Dori or Lora nala, but one large water channel has to be crossed and the plain is also broken in places by nalas and intersected by irrigation cuts. A guide is therefore necessary, although the Jat Poti trees are plainly visible bearing S. W. immediately after clearing the gap.

In the case of a considerable body of troops it would perhaps be better to keep away to the right after passing the gap, and to skirt the rocks and sand to Pain Khan's village, which is passed at about 4 miles. Thence E. passing Ahmad Khan's village at 6 miles. From there is a good road, passing N. of Murad Khan Kala to Amunzai (9½ miles), and then S.W. to Jat Poti, which is reached at 12½ miles. This road is practicable for all arms.

 $Camping\ ground.$ Water. Fuel. Fodder. Supplies. $Vide\ Route\ 14,\ stage\ 3.$

ROUTE No. 14-E.

JAT POTI TO SHAH PASAND.

Viâ Gwazha.

78 miles.

6 stages.

Authority.—2nd Afghan war records and native information, 1900.

Epitome.

to Gwazha following this route then to Jat Poti where the main Route 14 to Nushki is joined.

Road.—Camel road practicable for wheeled artillery throughout. Practically no *ebstacles* are encountered along the route, which is open throughout the year.

Camping grounds.—Stage 1 for 1 battalion only, remaining

stages for 1 infantry brigade at least.

Water.—For 1 infantry brigade at all stages except at stage 4, where natives report that the Lalgoli tank is often dry, but it is believed there is always an abundance of water at that stage between November and March.

Fuel.—Abundant at stages 2, 4 and 5 and procurable to a limited extent at other stages.

Fodder.—Good camel grazing throughout.

Supplies.—Nothing appreciable at the intermediate stages.

| No. of stage and total dis- tance. | DETAILS. | | | | | |
|------------------------------------|------------------|---|--|--|--|--|
| 1 15 m. | SPINAKHULA 15 m. | Camel road practicable for wheeled artillery. | | | | |

General direction N. E. Leaving Jat Poti (3,130') the track first leads across the great Shorawak plain. At 1 mile pass Amunzai, \(\frac{3}{4}\) mile W. of the road; at 2 miles the ziarat of Haji Makal and at 3 miles pass the high sand ridges known as Shpul Poti. At about 7 miles the western fringe of the Khurma hills is reached, the track passing through the Alu Karez gap between the Khurma range on the E. and the Shabas Khan Taraki rocks on the W. A well-marked path, skirting the base of the Khurma hills, is now followed for 4 miles till at 11 miles the Chawal plain is reached, across which the road leads N. W. At 21 miles the relain

Water.—For 2 infantry brigades at least; a plentiful supply of good water runs down from the hills through a mass of large granite boulders.

Fuel.—Scarce.
Fodder.—Fair camel grazing.
Supplies.—Nil.

2 ARGUTAI .. 15 m. Camel road practicable for wheeled artillery.

General direction N. E. Leaving Spinakhula the track follows the nala of that name for about $1\frac{1}{2}$ miles, after which it traverses some undulating ground flanked on the W. by the rocky heights of the eastern Sargu hills and on the E. by the Khwaja Amran range here known as Tang or Siah. Between the 3rd and 5th miles the track traverses a small plain called Chawal or Tsawal; at 5 miles it passes through a gap about 700× wide. flat and open, between the eastern and western Sargu hills. thence to about 10 miles it skirts the base of the western hills pretty closely. Thereafter to the end of the stage the track leads S. W. over stony undulating ground, falling on the W. to the sand-hills of the Registan. Close on the E. are low gravelly hills, and behind these a considerable extent of broken ground, intersected by hollows and large water-courses, extends for several miles to the base of Shasta. Numerous shallow nalas are crossed and the daman is sprinkled with thorny shrubs and bushes.

Just before reaching camp the Argutai stream is crossed; no difficulty. At 15 miles the halting place of Argutai still in the Badezai Achakzai country.

Camping ground.—For 1 infantry brigade on a stony plain.

Water.—For the above force and more from the Argutai stream.

General Direction N.E. For the first 4 miles to the Wach dara the road is metalled and in excellent repair. Thence over daman to the end of the stage. At 83 miles the halting place of Gwazha.

Camping ground.—For 1 infantry brigade.

Water.—For the above force from the Tanda dara stream and a karez.

Fuel.—Scarce.

Fodder.—Good camel grazing.

Supplies.—Nil.

4 LALGOLI TANK: 14m. 4f. Camel road practication of ALI GULI able for wheeled artillery. (4,036').

General direction N.W. Road now leads down the stony skirts of the hills which slope to the Kunchai plain. Numerous water-courses are crossed, but offer no obstacle to artillery. After 5 or 6 miles the road gets off the stones, and is thenceforward over light alluvial soil or sand. At $8\frac{1}{2}$ miles a track leads to a tank about 5 miles to the W., which is at the edge of the great sand desert, within the outermost sand-hills. The main road goes straight on to Kunchai wells. At $14\frac{1}{2}$ miles Lalgoli tank which is $1\frac{1}{2}$ miles long by over a mile wide and is said to contain water at all seasons; but this is doubtful; however, there is almost certain to be plenty between November and March. No permanent inhabitants, but in winter and spring numerous camps of Achakzais are in the neighbourhood and scattered over the whole plain.

Camping ground.—For 1 or 2 infantry brigades at least.

*Water.—For the above force at least between November and March.

Fuel.—An appreciable quantity of firewood obtainable. Fodder.—Hariala grass procurable; good camel grazing.

General direction nearly due N. Here the route lies over low sand-hills, and would be difficult for wheeled artillery. Stretches of sand continue for 3 miles when the road again leads over a hard, stony plain, covered with southern wood. A rocky ridge, called Bambul, is 2 or 3 miles to the left. Beyond this, N.W. is the Kunchai ridge. The sand desert extends up to and beyond these hills in great waves of loose red sand. At about 83 miles reach Kunchai camping place. There are two wells, one on either side of the road. They are about 150' deep; water slightly brackish, and not sufficient for a large body of men with their baggage animals. About due N. of camp, water is procurable from the bed of a ravine in the hills. To find the spot keep the highest peak on the right hand. Animals can be watered here from holes dug in the bed of the water-course. No permanent habitations, but nomad camps of Achakzais and Nurzais are scattered about (except in summer). There is also a good deal of cultivation in the plain.

This march is easy for artillery, except where sand has to be

crossed.

Camping ground.—For one infantry brigade at least.

Water.—For the above force from the 2 wells and the ravine referred to above.

Fuel.—Southern wood abundant.

Fodder.—Excellent camel grazing.

Supplies.—Nil.

5 SHAH PASAND .. 15 m. Camel road, practicable for wheeled artillery.

Leaving Kunchai the road leads N. for 6 miles over a hard level plain; good going or all arms. Low sand-hills blown up from the desert to the W., are then reached. The road crosses them for about a mile, and is heavy for wheeled artillery. After this a sharp turn to the left (N.W.)

the camping ground. The ascent from the water-cousse is steep Close by is the village of Shah Pasand, malik of the Gurak Nurzais.

The road is good all the way and quite practicable for artillery. The country is very bare and barren, and no water is passed on this march. Numerous tents of nomads are, however, scattered about in the cold season, and there are many flocks of sheep. Immediately to the N.W. of camp is the grand-looking scarped hill of Ashik which can be seen from Gwazha camp and forms an excellent landmark over the whole plain. The red sand-hills of the desert come down to the further bank of the river, which is here called the Dori.

Gatai, on the main road, is about 14 miles E. of Shah Patand and the intervening country is tolerably open. Columns advancing simultaneously on both roads can therefore communicate without difficulty.

Camping ground.—
Water.—
Fuel —
Fodder.—
Supplies.—

Vide Route 13, Stage 2.

ROUTE NO. 14-F.

SAIAD BUS TO JAT POTI.

25 miles.

2 stages.

Authority.—Native information, 1900.

Epitome.

General description.—A connecting route between Routes in Northern Baluchistan, Route 132, from Nushki and the through Route 14 from Nushki to Kandahar, which is joined at

Camping ground.—For 2 infantry brigades at the intermediate stage.

Water.—For the above force at least at the intermediate stage from the Dori river.

Fuel.—Procurable from tamarisk bushes.

Folder.—Grass procurable at Ziarat; also about 500 maunds of bhusa from Mandozai 3 miles E. of Ziarat; good camel grazing.

Supplies.—About 500 maunds unground grain from Mandozai.

| No. of stage and total dis- tance. | DETAILS. | | | | | | |
|------------------------------------|----------|----|-------|--|----------------|---------------------|--|
| $\frac{1}{15}$ m. | ZIARAT | •• | 15 m. | | \mathbf{for} | practic- wheeled | |

General direction N.E. Leaving the Barechi village of Saiad Bus the track leads across several sand ridges. At 1½ miles the old ruined fort of Pirosh Kala, E. of the road. At 3 miles Shahidan Ghundi where a lashkar of Barechis were defeated by a small column under Major Humfrey, 30th Bombay Infantry, in 1880. At 4 miles a small tank called Musa talao on the W. of the road, and some high sand bluffs called Reg-i-Khar near the road to Between miles 5 and 10 the country is thickly sprinkled with smalgai bushes (a species of tamarisk) and patches of sand are occasionally crossed. At mile 6, a good-sized tank close to the sand-hills on the right of the road. From mile 10 to the end of the stage the track runs over a level plain with a succession of sand-hills to the W., but to the E. is bare, flat country without cultivation or inhabitants. At 15 miles Ziarat which takes its name from a small white-washed tomb, near which is a hamlet of fakirs, on the banks of the Dori.

ROUTE No. 14-F—concld.

Fodder.—Limited amount of grass from the Registan; 500 maunds bhusa from large village of Mandozai 3 miles E. of camp; good camel grazing.

Supplies.—500 maunds unground grain from Mandozai nor-

mally available.

2 JAT POTI .. 10 m. Camel road practicable for wheeled artillery.

General direction N.E. Immediately on leaving camp the Dori river is forded; crossing easy. The road then follows the right bank of the Dori river for 3 miles, where it leaves the valley and runs across a perfectly level plain of alluvial soil entirely surrounded by sand hills to about 5 miles, where sand ridge 50' to 60' above the plain is crossed; the sand is very fine, soft and deep and would be trying for the horses of wheeled artillery. At 6 miles the hamlet of Saiyid Yahia W. of the road, perched on a sand bluff. Thence the track runs nearly due N. to Jat Poti, reached at 10 miles.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

Vide Route 14, stage 3.

ROUTE NO. 15.

KABUL TO KANDAHAR.

Viâ Maidan, Ghazni and Kalat-i-Ghilzai.

 $310\frac{1}{4}$ miles.

27 stages.

Authority.—2nd Afghan war records and native in-

the richest district in Afghanistan, but the present route vid Argandeh and Kala Durani, which is identical with the last 4 stages of Route 4, is the shorter by $17\frac{1}{2}$ miles and better for troops, especially as it is now metalled. From Saiyidabad to Kandahar (259½ miles) there is no doubt that this is the best and shortest route, though alternatives exist here and there.

Average elevation of road from Kabul to Ghazni is 7,000'; from Ghazni to Kandahar (3,342') there is a gradual descent. was followed from Kandahar to Saiyidabad in March 1880 by a British division of all arms under Sir Donald Stewart consisting of 7,250 troops, 7,300 followers and 11,210 animals, and from Saiyidabad to Kandahar in August 1880 by the Kabul-Kandahar Force under Sir Frederick Roberts, consisting of 10,000 troops, 7,800 followers and 10,000 animals. The section Kabul to Saiyidabad was traversed by a force of all arms under General Ross in April 1880, consisting of 4,000 troops with attendant followers and animals, and by the heavy batteries of Sir D. Stewart's force referred to above.

Road.—Metalled motor road 24' wide with 12' to 16' metalling, no soling; reliable information in August 1912 indicated that the entire road would be metalled throughout by the autumn of 1912; bridges and culverts were then in process of construction between Ghazni and Kandahar, on pletion of which the entire road would be ready for motor traffic.

As the road has been improved for motor traffic all serious obstacles have been removed.

The Sher Dahan pass (8,500') is crossed in the seventh stage and presents no difficulty.

Route open throughout the year, though the section Kabul to Ghazni is frequently under snow in the winter.

Camping grounds.—For a division at all stages.

Water.—For a division at all stages.

Friel -Wood scarce but seruh abundant

For supplies, etc., at Ghazni and Kandahar vide Routes 6 and 12 respectively.

| No. of stage and total dis- tance. | DETAILS. | | | | | | |
|------------------------------------|----------------------|-------|---------------|-------|------|--|--|
| 1 15 m. | ARGHANDEH: (7,200'). | 15 m. | Metalled 24'. | motor | road | | |

Taking the suburb of Deh Afghan as the starting point the road leads S.W. towards the Deh Mozang gorge. At 1 mile Deh Mozang* (500 houses), inhabitants Tajiks and Kizilbashis, at the eastern entrance of the gorge which is about 1 mile in length and in which the road crosses the Kabul river by a wooden bridge 30× long and 6× wide; river only 4' deep as most of the water is taken off for irrigation higher up. Then it crosses a broad canal by a good plank bridge with a railing, and emerging from the gorge turns S.W. across the Charden plain, which is covered with fields, and gardens, thick with tall poplars and seamed with irrigation channels. There are numerous fortified villages, and infantry can only move with difficulty off the road. At about 3 miles pass the Deh Bori, a collection of 3 Tajik villages (about 200 houses). At 43 miles pass the Amir's large new garden house and grove, known as the Mahtab Bagh. skirt the northern slopes of the Korogh range and reach the small village of Kala Kazi, situated 3 mile S. of the road on the W. edge of the Chardeh plain. Kala Kazi or Kala-i-Kazi was the farthest point reached by the Royal Horse Artillery and Cavalry in General Massey's engagement on the 11th December 1879. Here there is:—

Camping ground.—Difficult to find owing to cultivation.

Fodder.—About 1,000 maunds bhusa could normally be collected in the immediate vicinity; good camel grazing except in winter.

Supplies —About 1,000 maunds unground wheat and bar-

ley procurable in the immediate vicinity.

Road now leads due W., the Kabul river being left to the S. At $10\frac{1}{4}$ miles the Adramzai village of Murghir or Murgh Giran (100 houses). Here the Changar stream is crossed by a small, wooden bridge 6' long by 8' broad, practicable for wheeled artillery. At $11\frac{3}{4}$ miles Kala Ghulam Haidar (100 houses) and at 13 miles Kala Jafir Khan (50 houses), both Tajik villages. At $14\frac{1}{4}$ miles pass through a short, broad defile between a spur of the Paghman range and the Korogh mountain. At $14\frac{1}{2}$ miles opposite Arghandeh-i-Bala two roads branch off from this main road.

- (i) One running nearly due W. to Jaokul where this road bifurcates leading—
 - (a) to Herat viâ Daualat Yar.
 - (b) to Mazar-i-Sharif viâ Bamian.
- (ii) The other running N.E. over the Surkh kotal to Charikar $vi\hat{a}$ Istalif.

Arghandeh-i-Bala is about $2\frac{1}{2}$ miles N.W. of Arghandeh and lies in a small valley running up into and ending in the Paghman range of hills. Just before reaching camp the junction of the Changar and Arghandeh streams is crossed; no difficulty. Throughout this march the passage of all arms would be mainly confined to the road and the paths connecting villages, owing to the highly irrigated and cultivated condition of the country I or the last 5 miles also the road is flanked on the S. by the Korogh range. At 15 miles Arghandeh, or Arghandeh-i-Pain (1,500 houses) which was a place of great importance during the British occupation in 1879-80, as it commands the road by which supplies are brought to Kabul from the S. and S.W.

Camping ground.—For a division between Arghandeh and

days from the large villages of Arghandeh-i-Bala and Arghandeh-i-Pain.

Good camel grazing except in winter.

2 KALA DUR- 14m. 6f. Metalled motor road RANI. 24'.

29m. 6f.

From Arghandeh the Ghazni road runs S. W. The valley here is not very wide, and is bounded by hills both on the E. and W., but they are not near enough to enable an enemy to annoy a force marching through the valley, unless they were supplied with artillery. The Takht pass is reached at $3\frac{1}{2}$ miles, but the ascent to it is gentle, and it would not afford as good a position to an enemy as kotals usually do; in fact the country leading to it is extremely suitable for cavalry, as is that descending from it. From this kotal the cluster of villages called Pain Maidan is visible and distant about 4 miles. Two roads descend from the ridge, one leading to Ghazni, the other direct to Pain Maidan. the descent is commenced, there is a path on the E. leading over a low ridge which goes to Lalandar.

From Pain Maidan two valleys branch off westward, being separated by a not very high range of hills; one is called Bala Maidan through which the Kabul flows. It contains numerous villages and a path runs through it joining the Bamian road just beyond Rustam Khel. The other is called the Nirkh valley. It contains a good many villages, and is highly cultivated, but it leads nowhere in particular and ends in the hills.

At $7\frac{1}{2}$ miles Pain Maidan (7,170'), 300 houses. Here there is— Camping ground.—N. of village for 2 or 3 infantry brigades at least.

Water.—For a division and more from the Kabul river, about 1 mile to the W., whose water is brought close to camp by irrigation channels.

Fuel.—Wood scarce.

The old masonry bridge which existed in the 2nd Afghan war was subsequently swept away by floods, but has since been reconstructed. The river, however, is easily fordable, not being more than 18" deep. The river winds about a little and then strikes northwards to Deh Kepak, whence it flows nearly due E. through the Lalandar valley and makes its way to Kabul. As soon as the river is crossed, there is a gorge running up the hills on the E. of the valley, and so to the Logar valley; and it was this route which was taken by Brigadier-General Baker's brigade in November 1879. Before Kala Durani is reached, a low range of hills, with a narrow gorge through it, has to be passed, which might afford a fair position to an enemy attempting to block the road.

The country throughout this march is much restricted, the road lying in valleys, bounded at comparatively short distances by high hills.

At 143 miles Kala Durani, a small Tajik village with a fort.

Camping ground.—For a division at least.

Water.—For the above force from a large stream E. of the road.

Fuel.—Wood scarce, scrub abundant.

Fodder.— A considerable quantity of unground wheat Supplies.— and barley and an equivalent amount of bhusa could be collected from the populous neighbourhood known as Surkhpul Maidan, passed on the road 2 miles before the end of the stage. Good camel grazing except in winter.

3 **TOP** 10m. 4f. Metalled motor road 24'.

40 m.

General direction S.W. Road gradually ascends for the first half of the stage till a distinct watershed across the valley is reached at 5 miles, when the road descends gently but decided-

from the Nirkh valley through the Ber Samand valley. About this point also there is the watershed already referred to across the valley. When the ridge of the watershed is reached and for some distance afterwards, signalling can be carried on with the Sher Dahan, a kotal about 10 miles short of Ghazni. From Top itself the Sher Dahan is lost, but it can easily be got from hills not far off. The road in this march lies in a valley 2 miles wide, flanked by high hills on the E. and W. At $10\frac{1}{2}$ miles the camping ground of Top, called after the small district of that name.

Camping ground.—For a division.

Water.—Probably sufficient for the above force from a tributary of the Logar river flowing parallel to the road, $\frac{1}{4}$ mile to the W. of it.

Fuel.—Wood scarce, scrub abundant.

Fodder.— Probably nothing appreciable; good camel supplies.— grazing except in winter.

4 SAIYIDABAD. 10m. 2f. Metalled motor road. (6,950'). 24'.

50m. 4f.

Road continues S.W. and follows the left bank of the tributary stream referred to. The valley descends gradually at first and afterwards more rapidly. At about 5 miles the Wardak country is entered. At $5\frac{1}{4}$ miles Shaikhabad (6,650') at the junction of this tributary stream with its parent river the Logar, over which a masonry bridge was built at this point in 1906; in addition there is also a strong, wooden bridge near by. The average depth of the water here however is only about 18". Shaikhabad proper stands on the right bank of the Logar, the houses on the left bank compose the village of Kheri Taisang which however is included in Shaikhabad. There is a strong fort here. Here there is—

Comming around For a division *

Water.—For the above force and more, from the Logar river.

Fuel.—Wood in small quantities; also a certain amount of scrub.

Fodder.—Grass and clover abundant except in winter. Supplies.—Rice and jowar are plentiful; wheat scarce.

The road continues S.W. and at about 8 miles enters the Shiniz valley following the left bank of that river to the end of the stage. The country throughout this march is much restricted, the road lying in valleys, bounded at comparatively short distances by high hills. At $10\frac{1}{4}$ miles Saiyidabad, a cluster of hamlets belonging to the Khwaja Rasul Saiyids. Signalling communication with the Sher Dahan kotal can be maintained from a hill just W. of the village.

Camping ground.—For a division on the left bank of the Shiniz river.

Water.—For the above force from the Shiniz river.

Fuel.—Wood scarce.

Fodder.— Supplies.— Sextent can be collected from the various villages in the Shiniz and Unkai valleys. Good camel grazing except in winter. From Kabul to Saiyidabad Routes 4 and 15 are identical. In the present route, however, this section has been described from Kabul onwards, whereas in Route 4 it is described from Saiyidabad to Kabul.

From a point a short distance before reaching Shaikhabad a route is known to lead over the Kadam Khan kotal past Piru Khel and Shaleli to Babus. It is said that it could be made fit for wheeled artillery.

5 HAFT ASIA .. 15 m. Metalled motor road, 24'.

65m. 4f.

Road continues S.W. and runs parallel to the Shiniz river,

At Haidar Khel there is: -

Camping ground.—For 2 infantry brigades W. of the road.

Water.—For a division from the Shiniz river.

Fuel.—Wood scarce, scrub abundant.

Fodder.— Bhusa and unground wheat and barley to an Supplies.— Suppreciable extent could be collected from the Haidar Khel villages.

Leaving Haidar Khel the road once more passes through low hills and at 10 miles it practically leads through a defile, the hills flanking the road very closely on both sides. Immediately afterwards it emerges on to the open valley which is extremely fertile and well cultivated with numerous villages dotted about. At 15 miles the Wardak village of Haft Asia, which comprises 10 to 12 fortified hamlets.

Camping ground.—For a division.

Water.—For the above force from the Shiniz river and a karez.

Fuel.—Wood scarce, scrub abundant.

Fodder.—Grass and lucerne procurable except in winter; bhusa to an appreciable amount should be normally available; fair camel grazing.

Supplies.—Unground wheat and barley to an appreciable amount could be collected in the vicinity. Good camel grazing except in winter.

6 SHASHGAO .. 10m. 2f. Metalled motor road, 24'.

75m. 6f.

Road continues S. W. and still follows the right bank of the Shiniz river. The hills once more close in on the road on the E., restricting the movements of cavalry and wheeled artillery in that direction, but to the W. the country remains open and is suitable to the passage of all arms. At $10\frac{1}{4}$ miles the walled Wardak village of Shashgao,* surrounded by a

Fodder.—Grass and lucerne to a limited extent except in winter; a considerable quantity of bhusa could be collected in the immediate vicinity; fair camel grazing except in winter.

Supplies.—A considerable amount of unground wheat, barley and other grain procurable from villages in the immediate vicinity.

7 GHAZNI .. 13m. 2f. Metalled motor road, (7,279'). 24'.

Road continues S.W. and leads through open country. The hills to the E. are from 2 to 3 miles distant, as far as the northern entrance of the Sher Dahan pass, reached at 3½ miles. The road through the pass is good, and broad enough for four horses abreast, and easy for all arms. Ascents and descents gradual and quite practicable for the heaviest wheeled guns. pass (8,500') reached at about 5½ miles; containing hills bare and treeless, casy of access especially on the E. For about a mile beyond the crest of the kotal there is a gradual descent, and the hills close in. The southern end of the pass is reached at about $6\frac{1}{2}$ miles. Here the hills receding again in a curve, on either side, form a basin, from a mile to a mile and a half broad, in which is a line of karezes furnishing water for about 100 acres of cultivation. At 9 miles they converge again, and here the road ascends a second low kotal in nearly a straight line, from the top of which the Ghazni plain is overlooked. Between the 9th and 10th miles there are a succession of dry water-courses, some of which require ramping to allow of the passage of wheeled artillery. At $10\frac{3}{4}$ miles a nala and a stream are met with, which also require ramping at this point; but they can be turned by a detour to the W. At 123 miles pass suburb of Roza, the outskirts of which are a mass of vineyards; and ½ mile further reach camp on plain to the S. of the two old minars which stand to the E.

8 NANI .. 14m. 2f. Metalled motor road, 24'.

103m. 2f.

From the camping ground two roads lead to the southern extremity of the town of Ghazni; the western is the motor road and leads through the gardens outside the town; the other makes a detour to the E. and would be useful for transport animals. Leaving the town the road leads S.W. and maintains this direction, throughout the stage. At $3\frac{1}{2}$ miles a garden called Chehil Bachagan is reached after crossing the sandy bed of a river about 200^{\times} broad. Thence to Ispandi, reached at 7 miles, the road is flanked on the W, by a low range of hills $1\frac{1}{2}$ miles distant, and on the E. by hills considerably further off, the country between is well cultivated and studded with villages. Ispandi is merely a halting place and there would probably be room for 1 or 2 infantry brigades to encamp here if required.

The road now leads over an open, flat plain. At 9 miles Noghai on the E. of the road and a group of Ghilzai villages known as Bagla, 1 mile W. of the road, beyond which, separated by a low range of hills, is the district of Waghaz covered with many Musa Khel Ghilzai villages, beyond which again is the Hazara district of Kakrak. At about 11 miles the Andari villages of Kala-i-Fakir and Kala-i-Sher are passed about 1 mile E. of the road and at 12 miles the Kizilbash village of Karabagh also on the E. of the road. At 14½ miles the large Andari village of Nani in the western limits of the Shilgrha district.

Camping ground.—For a division on the open, sandy plain.

Water.—For the above force from several springs and karezes.

Fuel.—Wood scarce; scrub abundant.

Fodder.—Grass plentiful; an appreciable quantity of bhusu

9 MASHAKI .. 14m. 4f. Metalled motor road, (6,900') 24'.

117m. 6f.

General direction S.W. For the first $6\frac{1}{2}$ miles the road crosses an extensive plain; there are only a few water-courses to impede the march. Between $6\frac{1}{2}$ and $8\frac{1}{2}$ miles the hills are close on the W. side of the road. At about the 8th mile descend from a low pass to a stream with a boggy bed, where it is necessary to find other crossings lower down stream. The road then leads through low hills. Mashaki is a group of villages, surrounded by cultivation between two karezes. The villages in the neighbourhood are:

- (1) Khah Mashaki
- (2) Haji Musa
- (3) Kala-i-Meri
- (4) Akhund Khel
- (5) Kala-i-Murchi
- (6) Saiyid Musa .. Inhabited by Saiyids.

inhabited by Andari Ghilzais.

(7) Kala-i-Durani .. Inhabited by Duranis.

They were all deserted in April 1880. Supplies were brought in by Hazaras.

Camping ground.—For a division on an open sandy plain about $1\frac{1}{2}$ miles in length between 2 karezes.

Water.—For the above force from these karezes.

Fuel.—Wood scarce, scrub abundant.

Fodder.— Bhusa and unground grain to a very consider-Supplies.— able extent would normally be procurable from the Mashaki villages.

10 JAMRUD .. 9 m. Metalled motor road,

126m. 6f.

E. of the range, already alluded to, which is called Karabagh, of which Jamrud, Kala-i-Marwardar (1 mile from camp), and Chahardeh Bebud (2 miles from camp) belonging to the Chahardasta section, are the principal villages in its southern portion. These villages are fortified, being built close beside those of the Afghans, who are here mainly of the Andari section of Ghilzais. Most of these villages, both Afghan and Hazara, were in ruins in April 1880, owing to the feud between them. Each tribe had devastated the property of the other. There is also a good road from Karabagh.

At 9 miles the halting place known as Jamrud, near which are several Hazara hamlets, strongly fortified owing to the proximity of the Andari Ghilzai villages.

Camping ground.—For a division on the cultivated plain.

Water.—For the above force from karezes N. and S. of camp.

Fuel.—Wood scarce, scrub abundant.

Supplies.—) Nothing appreciable in the immediate vicinity.

11 OBA KAREZ .. 12 m. Metalled motor road, (6,986'). 24'.

General direction S.W. Country fertile and highly cultivated which would restrict the movements of wheeled artillery especially as the country is intersected by several difficult nalas and ravines. At 12 miles Oba; village marked by a large tree, near which a stream of clear water runs out from a karez. The villages near Oba Karez are—

Piari Khel and Bazak, 14 miles to the S.E. Laram, 3 miles to the S.

Fodder.—A considerable amount of bhusa could be collected from the surrounding villages; camel grazing excellent except in winter.

Supplies.—A large amount of unground wheat and barley procurable, also sheep in large numbers. In April 1880 supplies were found with difficulty owing to the country being deserted.

12 KALA SARKARI 14 m. Metalled motor road, ——————————————————(MUKUR DISTRICT). 24'.

152m. 6f. (6,550')

General direction S.W. Country W. of the road is open and passable by all arms; E. of the road there are a great many villages, protected by mud forts and surrounded by much cultivation. The Tarnak river whose source is to be found near Oba Karez flows parallel to the road for the first half of the march about 3 miles to the E.; then gradually it bends to the southward and is about 7 miles distant at Kala Sarkari; its course is marked by a line of willow trees. At 6 miles pass a mound visible for a considerable distance, and at $13\frac{1}{2}$ miles reach a number of springs which form a tributary stream of the Tarnak.

Camping ground.—For a division on a small plain E. of the road.

Water.—For the above force from an excellent spring 4 mile W. of the main road; animals would be watered at the many water channels.

Fuel.—Wood scarce, scrub abundant.

Fodder.—In March and April khasil daily for the horses of one cavalry regiment at least; bhusa to a considerable extent, probably at least 2,000 maunds could be collected from the villages in the vicinity; good camel grazing except in winter.

Supplies.—Some 2,000 to 3,000 maunds unground grain should normally be procurable from the surrounding villages.

13 GHOJAN or AGHAO. 11m. 4f. Metalled motor road, 24'.

164m. 2f.

General direction S.W. Country generally open and passable by all arms, though in the latter half of the stage several deep *nalas* and ravines are crossed.

Ghojan is the name of a district, watered by a karez, with several ramifying branches. On this karez are a group of villages, situated to the N.W. about 2 miles distant. The two to the S. are called Aghao Jan, two in the centre Zabit and the northerly one Shinkai. They are villages of considerable size and the district is fairly fertile. From Shinkai the Otla pass is said to be easy, and leads to Rasana, whence to the country of the Jaguri Hazaras. In Aghao Jan district the inhabitants are Taraki Ghilzais.

Camping ground.—For a division on an open plain; western boundary marked by a hill $\frac{1}{2}$ mile W. of the road.

Water.—For a division from a karez.

Fuel.—Wood scarce, scrub abundant.

Fodder.—A few hundred maunds bhusa procurable from the villages referred to; good camel grazing except in winter.

Supplies.—A few hundred maunds unground grain normally available.

14 CHASMA-I-PANJAK. 11m. Metalled motor road, 24'.

175m. 2f.

General direction S.W. The road passes over an open but poorly cultivated plain; here and there it crosses nalas, which require more or less preparation. On the W. the hills between the Tarnak and Arghandab valleys, which are 5 miles from the camping ground at Ghojan, are for the greater part of the march 4 or 5 miles from the road. At about 3 miles cross

near camp are Kala-i-Adam Khan, Babakarzai, Suza and Mulla Kaisar. Inhabitants, Tokhi Ghilzais.

Camping ground.—For a division to the W. of the road, with an alternative site N. of the nala.

Water.—For the above force from karezes.

Fuel.—Wood scarce, scrub abundant.

Fodder.—A few hundred maunds bhusa normally available; good camel grazing except in winter.

Supplies.—A few hundred maunds unground grain ordinarly procurable.

15 SHAHJUI .. 8 m. Metalled motor road, (6,247') 24'.

Road continues S.W. The Tarnak river now gradually approaches the road and for the latter half of the stage the river flows parallel to the road about 1 mile distant.

Country generally open and passable by all arms.

The villages near Shahjui are (1) Saigai, about 1½ miles S. of camp; (2) three villages of Musazai, on the left bank of the Tarnak, about 3 miles from Shahjui; (3) Kala-i-Dinak, 2 miles E. of Shahjui; (4) two villages, Sangar and Kala Khel, about 3 miles W. of camp. The villages of Ulan Robat to the N.W. might also be requisitioned, but the nearest is quite 7 miles distant. In the Ulan Robat group are some 20 villages; country very rich.

Camping ground.—For a division; sites on both sides of the road.

Water.—For a division from karezes; animals if necessary could be watered at the Tarnak river about $\frac{3}{4}$ mile E. of camp.

Fuel.—Wood scarce, scrub abundant.

Fodder.—Probably from 1,000 to 2,000 maunds bhusa could

16 TAZI .. 12 m. Metalled motor road, (5,849') 24'.

192m. 2f.

General direction S.W. The country for the first 5 miles is open and passable by all arms. At 5 miles the Tokhi villages of Mir Kot on the W. of the road and Gagari \(\frac{3}{4}\) mile E. of the road. Here the Tarnak river, coming in from the N.E., almost meets the road, which follows its right bank henceforward to within a few miles of Kandahar. At 5\(\frac{1}{2}\) miles a range of hills is met, which flanks the road on the E. and continues to the end of the stage. The country on the W. of the road for the latter half of the stage is much intersected by nalas and ravines and would be very difficult for wheeled artillery. At 12 miles the halting place known as Tazi near the Tokhi Ghilzai village of the same name.

The villages on the left bank of the Tarnak, close at hand, whence supplies are procurable, are Tazi, Lala Shahid, Takht Gal, Gojai, Gundai, and Malegh, all inhabited by Tokhis. The Tokhi Patozai section also possess villages on the left bank, but they are distant some 7 or 8 miles. Principal among them are Abdulla, Khwaja Khel, Mulla Didan, Ukkas and Spin Tiga. To the N. of camp on right bank are two villages (3 miles off), Ashogai and Abdul Habib, rich in supplies.

Camping ground.—For a division W. of the road.

Water.—For the above force and more from the Tarnak river \(\frac{1}{4} \) mile E. of camp.

Fuel.—Wood scarce, scrub abundant.

Fodder.—Bhusa to a considerable extent could be collected from the Tokhi Ghilzai villages mentioned; good camel grazing.

Supplies.—A large amount of unground grain could be collected in the vicinity. The Tokhi Ghilzais did not readily produce supplies here in 1879-80, but subsequently foraging

At 4½ miles Amadin (50 houses) and at 5 miles Olali (70 houses) both Tokhi Ghilzai villages on the right bank of the river.

At 7 miles the halting place known as Naorak.

There are small patches of cultivation here, but no village. In an S.E. direction, distant about 3 miles, is a hamlet called Musa Khel; but the country generally is uninhabited and unproductive. At about 6 miles S. of Naorak there is a village named Bubakarzai, on the left bank of the Tarnak, with cultivation, and also a narrow valley called Dorai, which contains two or three small villages, 2 and $3\frac{1}{2}$ miles from Bubakarzai. Another group of villages, from 6 to 10 miles distant, is called Kurram, situated in a undulating plain to the N. E., from which supplies can also be procured, on which account it might be found more convenient to halt on the right bank opposite Bubakarzai, making a march of 13 miles from Tazi.

Camping ground.—For a division, but the site is a bad one, being too confined between the river to the E. and the broken ground to the W.; the force would have to be divided into several encampments on both sides of the river.

Water.—For the above force and more from the Tarnak. Fuel.—Southern wood abundant.

Fodder.—Good camel grazing.

Supplies.—Nil.

18 SAR-I-ASP .. 12 m. Metalled motor road, 24'.

214m. 2f.

General direction S.W. For the first half of the stage the road lies between 2 parallel ranges of hills, the intervening valley being only a few hundred yards wide. During the second half of the stage the hills W. of the road disappear and in their place is a bare, open plain. At 12 miles the encamp-

19 KALAT-I-GHILZAI 9 m. Metalled motor road, (5,543') 24'.

223 m. 2f.

General direction S.W. Country E. of the road generally is broken and hilly, to the W. is a bare, open plain. At 9 miles Kalat-i-Ghilzai.

KALAT-I-GHILZAI. Population 15,000. Garrison (1912) 1 squadron cavalry, 3 battalions infantry and 3 batteries.

In 1880 the fort was described as being a work of irregular profile, situated on a hill 100' above the surrounding plain. It is roughly in the form of an oblong, the N. and S. sides of which are about 300× in length, and the E. and W. about 150×. The main gateway is on the S. side; the approaches to it are steep and fairly well flanked by a wall facing N.E. The rampart is surrounded by a loop-holed wall about 6 feet in height, and about 2 feet thick; loop-holes are faulty and ill constructed, admitting of shelter being obtained under the wall; both wall and rampart are much out of repair. It would be necessary to breach the walls before attempting an assault. The weak point is on the N. side, where there is an unused gateway; here the wall is very thin, and the approaches to it not so steep as on the other side. There is a commanding hill 600× N.W., whilst to the W. lies high ground, on which batteries could be erected to enfilade completely the N. and S. The fort was not considered in 1882 as fit to against troops armed with rifled guns and modern rifles. the interior there are some buildings which would serve as shelter for troops and as hospitals and supply store-houses. In the centre, on an artificial earthen mound, is a citadel, or keep, 80' above the main fort; it would be impossible to scale this; but, in the event of the fort falling, it could not hold out from want of water, which is obtained from a spring

district from 10 to 20 miles to the E. and Mizan district (Duranis) in the Arghandab valley to the W. can furnish a large amount of supplies. The people in the immediate neighbourhood of Kalat-i-Ghilzai are Hotak and Tokhi Ghilzais.

Route 9, a main through route from the Zhob joins this

route here.

Route 15-D, the alternative route between this stage and Kandahar, viâ the Arghandab valley, leads away to the W. from Kalat-i-Ghilzai.

Camping ground.—For a division at least.

Water.—For that force from the Tarnak river.

Fuel.—Wood procurable to a certain extent within a radius of 5 miles, also a certain amount of scrub.

Fodder.— Bhusa, unground wheat and barley and prob-Supplies.— ably gram, sufficient for the requirements of a division for about a fortnight could be collected in the vicinity. There is also good camel grazing.

20 **PUL-I-SANG** .. 8 m. Metalled motor road, (5,007') 24'.

231m. 2f. General direction S.W. Country open throughout. At 5 miles the Hotak Ghilzai village of Sefu Kala ½ mile E. of the road. At 8 miles the halting place of Pul-i-Sang on the boundary between the Ghilzai and Durani country.

Camping ground.—For a division.

Water.—For the above force and more, from the Tarnak river.

Fuel.—Wood scarce, scrub abundant.

Fodder.—Fair camel grazing.

Supplies.—Nothing appreciable.

21 JALDAK .. 9 m. Metalled motor road

Camping ground.—For a division; site poor and several detached camps would have to be made.

Water.—For the above force and more from the Tarnak.

Fuel.—Wood scarce, scrub abundant,

Fodder.—Khasil for the horses of a cavalry brigade daily, during March and April; lucerne grass obtainable; bhusa to a considerable extent, good camel grazing except in winter.

Supplies.—A large quantity of grain is usually stored in the granary; abundant supplies of all kinds were procurable here in 1879-80.

22 TIRANDAZ .. 14 m. Metalled motor road.

254m. 2f.

General direction S.W. In 1880 this section of the road to Tirandaz was described as follows.

"A mile from camp the river makes a bend, cutting into the hillsides, and a track must be prepared for heavy guns. For the first 3 miles the road is fairly good. Thence there are two roads to Tirandaz; one, the regular and direct road runs round a hill close to the river bank, and has a considerable ascent with a somewhat difficult turn; though good enough for camels it would not be considered safe for guns. The other crosses a hill to the W. of the Jalaogir pass; it is a longer round but presents no difficulties. The march is a trying one, and in some places irrigation channels caused delay to camels."

It is now (1912) known that one of these 2 roads is a motor road.

Camping ground.—For a division on an open plain E. of the road.

Water.—For the above force and more, from the Tarnak

General direction S.W. At $1\frac{1}{2}$ miles cross a nala with high banks, and at 2 miles pass a minaret. At about 8 miles the villages of Shahbaz Khan and Bakhtiar, whose irrigation channels overflowed in April 1880, and the road was swamped. A long detour had to be made to the E. The remainder of the march is good. There is no village at Shahr-i-Safa, but on the right of an artificial mound some $400 \times$ in front of the river, is situated the encamping ground on a fine open plain.

There is not much cultivated land in the vicinity of Shahr-i-Safa.

Camping ground.—For a division at least on the plain referred to.

Water.—For the above force and more from the Tarnak river.

Fuel.—Tamarisk bushes on the river side afford a little fuel.

Fodder.—Good camel grazing except in winter. Supplies.—Nothing appreciable in the vicinity.

24 KHEL-I-AKHUND 12 m. Metalled motor road.

278m. 2f.

General direction S.W. For the first five miles the road passes across an open, undulating plain, then for the rest of the stage there is a constant succession of ascents and descents; at the 7th mile a defile is reached, called the Poti pass between two low hills. The road passes over the face of a hill which falls precipitously towards the bed of the Tarnak.* The descent is steep and narrow.

Camping ground.—For a division.

Water — From the Tarnak for the above force.

Supplies.—A considerable quantity of ata, unground wheat and barley procurable.

25 ROBAT .. 12 m. Metalled motor road, 24'.

General direction S.W. Country consists of undulating plains on which a few low hills are occasionally dotted; easy for the passage of all arms. At 12 miles the Durani village of Robat.

Camping ground.—There are 2 sites for camps; the site on the W. of the road being considerably larger than that on the E.; sufficient room for a division.

Water.—For a division and more from the Tarnak river. Fuel.—Wood scarce, scrub abundant.

Fodder.—Khasil for the horses of a cavalry brigade daily during March and April; bhusa procurable to a considerable extent; good camel grazing except in winter.

Supplies.—Unground wheat and barley to a considerable extent can be collected.

Communication by heliograph, can be maintained direct with Kandahar citadel $vi\hat{a}$ Mohmand.

26 MOHMAND .. 8 m. Metalled motor road, 24'.

General direction S.W. Road leads over a daman which however is much intersected by water-cuts. At 8 miles group of villages known a Mohmand.

Camping ground.—For a division on an excellent site N.W. of the village.

Water.—For the above force from the Tarnak.

Fuel.—Procurable from tamarisk bushes.

ROUTE No. 15—concld.

General direction nearly due W. Road traverses an extensive plain, excellent going for all arms. At about 10 miles the suburbs of Kandahar are reached. At 12 miles Kandahar.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—
and for description of Kandahar

Vide Route 12, stage 6.

ROUTE No. 15-A.

GHAZNI TO KANDAHAR.

Viâ Sang-i-Masha and Maidan.

224 miles.

19 stages.

Authority.—Native information.

Epitome.

General description.—An alternative route between Ghazni and Kandahar, though very little is known about the route than that it exists. The section Ghazni to Sang-i-Masha (stage 5) was used by Abdur Rahman in his descent upon Ghazni. From Sang-i-Masha to Maidan (stage 10) the route is supposed to follow the Arghandab valley; at Soznai, stage 17, it joins Route 15-D, the Arghandab valley route to Kandahar, which it follows for the last two stages.

Road.—Believed to be a camel road throughout.

The only known obstacle met with is the Arghandab river which is forded at Soznai; the river is sometimes unfordable here, for a fortnight at a time, after heavy rain in the winter and spring. In September and October 1880 the river ran in two streams at Soznai each about 3' deep and 40× wide: the

| No. of stage and total dis- tance. | | DETAILS | DETAILS. | | | | |
|------------------------------------|---------|---------|-------------|--|--|--|--|
| 1 12 m. | KAKARAK | 12 m. | Camel road. | | | | |

General direction S.W. Leaving Ghazni the road leads down an open valley, whose stream crosses the Kabul-Kandahar road 12 miles S. of Ghazni, and then joins the Ghazni river. At about 12 miles Kakarak in the Waghar district, standing on the banks of a stream of the same name. There are several Musa Khel Ghilzai villages in the vicinity.

Camping ground.— Water.— Fuel.— Fodder.— Supplies.—

GULISTAN .. 12 m. Camel road.

24 m.

Road continues S. W. At about 5 miles it passes several Jaghuri Hazara villages. At 12 miles there is a halting place near the village of Gulistan, whence a camel track leads due S. to the Kabul-Kandahar road (Route 15) about 8 miles distant, which it joins a little N. of Jamrud, stage 10 of that route.

Camping ground.—
Water.—
Fuel.— Fodder.— Supplies.—

| Camping ground.— Water.— Fuel.— No information. |
|--|
| Water $Fuel$ $Fodder$ No information. |
| Fuel.— No information. |
| Fodder.— Supplies.— |
| |
| 4 CAMP 12 m. Camel road. |
| 50 m. |
| Road now leads nearly due W., nothing is known abou |
| this stage. |
| Camping ground.— |
| Water.—- |
| $Camping\ ground.$ $Water.$ $Fuel.$ $Fodder.$ $No\ information.$ |
| Fodder.— |
| $Supplies_{\bullet}$ — |
| 5 SANG-I-MASHA 12 m. Camel road. |
| |
| 62 m. General direction W. The road runs over a level plain |
| gradually descending into the Sang-i-Masha valley in the |
| latter half of the stage. |
| Camping ground.— |
| Water.— |
| Fuel.— No information. |
| Fodder.— |
| Supplies.— |
| 6, 7, 8, 9 MAIDAN About 68 m. Camel road. |

130 m.

and 10.

The information about these five stages, as about all other routes through the Hazaraiat is vacue: it is

ROUTE No. 15-A—concld.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

No information, but there would certainly be sufficient water for one infantry brigade with proportion of divisional troops throughout these 5 stages from the Arghandab river

11, 12, 13, 14, SOZNAI

SOZNAI .. 80 m. Camel road.

15, 16 and 17.

210 m.

There is practically no information about this section except that a camel track exists; its probable course by the map is about 80 miles and these have been divided into 7 stages. At Soznai, Route 15-D, running from Kalat-i-Ghilzai to Kandahar $vi\hat{a}$ the Arghandab valley is joined.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

For intermediate stages no information.

For Soznai, vide Route 15-D, stage 8.

18 SHAKCHALA.. (OR SHEKH

9 m. Camel road.

219 m. CHALA)

This stage is identical with stage 9, Route 15 D.

19 KANDAHAR..

5 m. Camel road.

224 m.

This stage is identical with stage 10, Route 15-D.

ROUTE No. 15-B.

KALA SARKARI (MUKUR DISTRICT) TO SANG-I-

route between Ghazni and Kandahar. The information about this route, as about all other routes in the Hazarajat is vague.

Road.—Camel road, passable for wheeled artillery throughout. No obstacles are known to exist. Route open throughout the year.

| Camping ground.— | ` |
|------------------|-------------------|
| Water.— | 1 |
| Fuel.— | > No information. |
| Fodder.— | |
| Supplies.— | J |

| No. | |
|------------|----------|
| of stage | |
| | DETAILS. |
| total dis- | |
| tance. | |

1 KALA-I-MULLA: 12 m. Camel road passable for wheeled artillery.

Leaving Kala Sarkari the road leads S.W. across a wide open plain, which is said to resemble that of Rawal Pindi. At about 6 miles the road bends gradually N.W. and heads direct for Kala- i-Mulla, reached at 12 miles, where there is a strong fort.

 $Camping\ ground.$ Water. Fuel. Fodder. Supplies. Supplies. Supplies. Supplies.

2 KALA HAJI .. 10 m. Camel road passable
by wheeled artillery.

22 m. General direction due

N. Leaving Kala-i-Mulla the road almost immediately leads

ROUTE No. 15-B—concld.

3 SANG-I-MASHA .. 13 m. Camel road, passable for wheeled artillery.

Road continues due N.; a low kotal is reached at 4 miles, whence there is an easy gradual descent to the Sangi-i-Masha valley. At 13 miles Sang-i-Masha.

Camping ground.—
Water.—
Fuel.—
Fodder.—
Supplies.—

No information.

ROUTE NO. 15-C.

ROBAT TO KALA SARKARI (MUKUR DISTRICT).

153 miles.

14 stayes.

Authority.—2nd Afghan war records, 1880.

Epitome.

General description.—This route is an alternative to stages 12 to 25 of Route 15, the main Kabul-Kandahar road; the routes run roughly parallel to one another, being never more than 10 miles apart.

Road—Camel road throughout and with a little labour could easily be made passable for wheeled artillery. The following obstacles, which are very slight, are met with:—

(i) The Khushk Rud river forded in the 4th stage; river always fordable, no difficulty.

(ii) The Tarnak river forded in the penultimate stage; as above.

Route open throughout the year.

Fuel.—Scarce from stages 1 to 8; from stage 9 onwards fire

wood is scarce, but scrub is plentiful.

Fodder.—Khasil at stages 2 and 3 for the horses of a cavalry brigade, from stage 12 onwards for the horses of a cavalry regiment, perhaps more, between the 15th March and the 15th May; lucerne at stage 12; bhusa in varying quantities at practically every stage, the amount procurable being considerable in the Tarnak valley; fair to good camel grazing throughout except at stages 1 and 2 where there is none.

Supplies.—Unground wheat and barley in varying quantities at practically every intermediate stage, the amount procurable being considerable in the Tarnak valley. Large flocks of sheep available in spring and summer at stages 9 and 12, and

probably at other stages in that vicinity.

| No. of stage and total distance. | | , 1 | DETAILS. |
|----------------------------------|-----------|------------|---|
| 1 4 m, 6 f. | MARSINZAI | (2) | 4 m, 6 f. Camel road prac- ticable for wheeled artillery. |

At Robat the road branches off from the main Kabul-Kandahar road (Route 15) and leads due E. through irrigated fields; many irrigation channels are crossed in this march, some of them knee deep and consequently difficult for camels. At 43 miles Marsinzai (50 houses).

Camping ground.—For at least 2 infantry brigades with proportion of divisional troops on a fine, open plain W. of the

village.

Water.—For the above force and more from several water channels.

2 MIR ALAM .. 15 m. Camel road practicable for wheeled artillery with a little labour.

General direction due E. Road for first 2 miles fairly good, over low, undulating ills; then very broken and rocky ground, with track winding through nalas with gradual ascent as far as Tagak kotal, 14 miles. W. of the kotal is a sugar-loaf hill called Koh-i-Duzd. Heliographic communication might be established with Kandahar from a hill easy of ascent E. of the kotal, whence the hills N.W. of Kandahar are distinctly visible. This stage can be made practicable for wheeled artillery by a company of sappers in six to eight hours,

At 15 miles Mir Alam's village about 11 miles from the

karezes of the same name.

Camping ground.—For 1 infantry brigade with proportion of divisional troops on a site surrounded by low, barren hills and divided by a dry bed of a nala.

Water.—For the above force, at least, from the Mir Alam karezes, 1½ miles distant; water slightly brackish.

Fuel.—Limited supply of small scrub as before.

Fodder.—Khasil for the horses of a cavalry brigade daily during March and April; a few hundred maunds bhusa from the Konchazai villages within a few miles; no good camel graving.

Supplies.—A few hundred maunds unground wheat and

barley normally procurable.

3 SARICHE .. 14 m. Camel road passable for wheeled artillery.

Leaving Mir Alam the road leads nearly due E. down bed of dry nala. At about 2 miles cross low, barren plain, covered with

Rud. Thermometer at Sariche in beginning of April 1880 was some 15° lower than at Kandahar.

Camping ground.—For a division on a fine open plateau on right bank of the Khushk Rud.

Water.—For the above force and very good from the Khushk Rud and several karezes.

Fuel.—Scarce.

Fodder.—Khasil in March and April, from the Konchazai and Sundarzai groups of villages, daily for the horses of a cavalry brigade; about 500 maunds bhusa normally procurable from these villages; good camel grazing, the first since Kandahar.

Supplies.—About 500 maunds unground wheat and barley normally available in the villages referred to.

9 m, 2 f. Camel road passable for wheeled artillery.

General direction N.E. Leaving Sariche road leads up the right bank of the Khushk Rud and is flanked on the W. by a low range of rocky hills. At 5 miles the road leaves the stream temporarily, crosses a low range of barren hills and descends once more to the river at 6 miles. At this point the river is forded; stream here in January 1880 was 20 × to 30 × broad, 2' to 3' deep, banks almost flush with the stream; river always fordable. The road now follows the left bank of the river; during the latter part of the march numerous hamlets, surrounded by their own cultivation are passed. At $9\frac{1}{4}$ miles the Popalzai village of Kala Mir Afsal.

Camping ground.—For 1 infantry brigade with proportion of divisional troops.

Water.—For a division from the Khushk Rud, which is $1\frac{1}{2}$ miles to the W., a branch nala passes close to camp, but the water is usually out off from it, and it takes some 6 hours to get

SALAM KALA .. 8 m, 6 f. Camel road.

51 m, 6 f.

5

General direction N. E. On leaving camp the road descends on to the banks of the Khushk Rud; descent steep but feasible for laden camels; it then continues up the bed of the stream, easy going. At about 6 miles villages of Khan Gul Khel and Abdul Rahim are passed. These are the last of the Popalzai villages. This is the boundary line between them and the Hotak tribe of Ghilzais. At $8\frac{3}{4}$ miles Salam Kala. There is a direct road from here to Kandahar by Shahbaz Khel, over the range, into the Tarnak valley. It passes between two peaks, prominent landmarks in this range, one called Koh-i-Chugni, being sugar-loaf-shaped, bearing 258° from camp, and the other 268°.

Camping ground.—For at least 1 infantry brigade with

proporton of divisional troops.

Water.—For the above force only from the Khushk Rud, which is now only a small stream.

Fuel.—Scarce.

Fodder.—A few hundred maunds bhusa can be collected within 2 or 3 miles; good camel grazing.

Supplies.—A few hundred maunds unground grain normally available.

6 SHIRAH .. 12 m, 6 f. Camel road.

64 m, 4 f.

Road still continues N.E. and ascends by an easy gradient into a large open plain and is easy throughout. Pass villages of Khair-ud-din on right bank, and Shadi on left bank of the Khushk Rud at about 4 miles. At $6\frac{1}{2}$ miles fort of Rahman Khan (rectangular, with four bastions) is passed, and at

Water.—For the above force from the river whose waters are brought to camp by 2 canals.

Fuel.—Scarce.

Fodder.—No camel grazing.

Supplies.—Nothing appreciable; the inhabitants (Hotali Ghilzais) make considerable difficulty in producing supplies.

7 PUMBA .. 14 m, 4 f. Camel road. (6,100')

General direction N.E. Road generally good. A steady ascent from camp. At about 3 miles a high tableland is reached. At 4 miles cross a nala, whose banks would require ramping for wheeled artillery (some 4 hours' work for a company of sappers). Cross tableland, which forms watershed between the Tarnak and the Arghastan. A somewhat undulating plateau with a slight ascent. At about 10 miles reach elevation of 6,300', whence there is a gradual descent; at 11 miles the Hotak Ghilzai villages of Mulahad, a few houses, with some fruit trees and cultivation. Pumba is 10 miles from the fort of Kalat-i-Ghilzai, which is visible bearing W.N.W. and with which heliographic communication can be easily established.

Camping ground.—For 1 infantry brigade with proportion of divisional troops, on an indifferent site.

Water.—For the above force from an open channel, and from several springs under the crest of a low range of hills to the E.

Fuel.—Scarce.

Fodder.—A little camel grazing in the valley to the W. Supplies.—Nothing appreciable.

8 **DIWALIK** .. 8 m, 4 f. Camel road. (6,200').

87 m, 4 f.

General direction N.E. Leaving Pumba the road slightly

Camping ground.—For 1 infantry brigade with proportion of divisional troops on undulating ground.

Water.—For the above force and more from several good springs near camp.

Fuel.—Very scarce.

Fodder.—Good camel grazing near camp.

Supplies.—Nil.

Easy heliographic communication with the main Kabul-Kandahar road, Route 15, 8 miles distant with which this route now runs parallel.

9 m. Camel road.

9 SURKOH KANDAO

96 m, 4 f, (6,340')

Direction continues N.E. Leaving Diwalik, a gradual ascent is at once made, the road following the bank of a dry nala; at about 6 miles a high plateau is reached, which extends as far as a range of hills which runs parallel to the road about 2 miles to the E. Numerous springs of water issue from the western slopes of this range with corresponding patches of cultivation and pasturage, on which large flocks of sheep are brought by powindahs to graze during the spring and summer; with the exception of these patches the country is barren and desolate. The country generally in this stage is similar to the last march, the road traversing high tablelands, practicable for all arms. At 9 miles the Tokhi Ghilzai village of Surkoh Kandao (100 houses) also known as Jahandad.

Camping ground.—For about 1 infantry brigade with pro-

portion of divisional troops.

Water.—For the above force at least, from several springs.

Fuel.—Firewood scarce, but there is a considerable quantity of wild thyme, a passable substitute, within 1 or 2 miles of camp.

General direction N.E. Road generally good over high tablelands. At about 3 miles pass a steep-banked nala requiring little labour to ramp; at about 7 miles the Tokhi villages of Saiyid, Loidin, and Firozi surrounded by some cultivation. These villages were found empty in April 1880, as the inhabitants had fled with their women and cattle to the hills. Thence the road runs parallel to, and about 3 miles distant from, the Surkh Koh range, over which there is a pass into Nawa, called Spir Sang, reported easy. At about $12\frac{1}{2}$ miles reach a few villages and a kotal; from this kotal a view of the fort of Shahabuddin is obtained, about $2\frac{1}{2}$ miles distant to the E.

Camping ground.—For about 1 infantry brigade with proportion of divisional troops on a confined and irregular site.

Water.—For the above force from a canal,

Fuel.—Scrub plentiful.

Fodder.—In 1880 foraging parties found some bhusa and grain which had been buried by the inhabitants who had fled; good camel grazing.

Supplies.—Nothing appreciable

From Khakah a camel road runs N.E. through the Taraki country over the Girdanai pass to Kala Khan, stage 6 of Route 8, the through kafila route from the Zhob to the Kabul-Kandahar road. Kala Khan is situated near the S.W. corner of the Ab-i-Istada lake.

11 KALA-I-DINAK .. 9 m. Camel road.

120 m.

General direction N.E. Leaving Khakah the road passes for the first 2 miles between two low ranges of hills, after which it passes into the valley of the Tarnak. Between the 3rd and 4th miles pass the Tokhi Ghilzai village of Madali and Bargai. There is a high hill about 1 mile E. of Bargai called Sperawana, from the top of which the Ab-i-Istada lake is visible.

Water.—For the above force from the Tarnak river, from which several irrigation canals bring water close to camp.

Fuel.—Wood scarce; scrub abundant.

Fodder.—Between 1,000 and 2,000 maunds bhusa could be collected ordinarily from the Shahjui villages within 2 or 3 miles of camp; fair camel grazing.

Supplies.—About 1,000 to 2,000 maunds unground wheat and barley could be collected from the villages referred to.

12 KALA-I-JAFAR .. 7 m. Camel road.

127 m.

General direction N.E. The road leads over an open plain with large belts of cultivation at intervals. At 2 miles pass ruins of an old fort and village, evidently of some importance formerly. During the last few miles numerous water channels are passed. At 7 miles Kala-i-Jafar in the Hibar district, one of the last of the Tokhi villages.

Camping ground.—For at least 1 infantry brigade with proportion of divisional troops on undulating ground N.W. of the village.

Water.—For a division from the Tarnak river, about 1 mile W. of camp, but there are numerous water channels nearer.

Fuel.—Wood scarce; scrub abundant.

Fodder.—Khasil daily in April and May for the horses of at least 1 cavalry regiment; lucerne to a considerable extent in spring; a few hundred maunds of bhusa ordinarily procurable; good camel grazing.

Supplies.—A few hundred maunds of unground wheat and barley normally available; large flocks of sheep in the vicinity during spring and summer.

13 MARTAZA .. 12 m. Camel road.

stream in the river, and the actual passage was very easy. The bed of the stream is firm throughout. The banks, however, are precipitous, and the road to the ordinary ford extremely steep, so that easier gradients must be selected or the regular road ramped. Country on the right of the Tarnak fertile and well cultivated. All the villages are regular forts, rectangular in shape, with loop-holed walls, 20' to 25' high and flanked by bastions at the corners. At 12 miles Martaza, which is reported to be a hot-bed of fanaticism. Martaza is about half-way between the two main Routes 8 and 15, being about 5 miles distant from each.

Camping ground.—Probably for a division on the open plain.

Water.—For the above force from the Tarnak river and several karezes.

Fuel.—Wood scarce.

Fodder.—Bhusa to some considerable extent normally procurable; good camel grazing.

Supplies.—A few hundred maunds unground wheat and barley ordinarily available.

14 KALA SARKARI 14 m. Camel road; ——— (MUKUR DISTRICT)

153 m. (6,550')

For the first 6 miles the road runs parallel to the right bank of the Tarnak, distant about 1 mile to the E, through richly cultivated and most fertile country, direction N.E. At 6 miles the road leaves the river and bends N.W; it now leads through the Mukur district, situated on a fine tableland, which for extent and richness of soil would compare favourably with any known district at this high altitude. The road now passes an almost continuous succession of villages till Kala Sarkari on the main Kabul-Kandahar road is reached at 14 miles.

ROUTE NO. 15-D.

KALAT-I-GHILZAI TO KANDAHAR.

Viâ the Arghandab valley.

102 miles.

10 stages.

Authority.—Biscoe, 1879-80.

Epitome.

General description.—An alternative route to stages 19 to 27, Route 15. It enters the Arghandab valley at stage 3, and follows it to within a few miles of Kandahar.

Road.—Camel road throughout; fit for wheeled artillery as far as stage 4; difficult for camels in stage 5.

The following obstacles are encountered:—

- (i) The Arghandab river which is forded in the 5th stage; river here ordinarily 3' deep with a strong current; during spates it is temporarily impassable at this point for 24 hours.
- (ii) The Arghandab river which is again forded in the 9th stage; river here is ordinarily 2' to 3' deep with a strong current, but it is known to be impassable for a fortnight at a time at this point during floods in spring.
- (iii) Several tributaries of the Arghandab, notably the Chinartu, Uian, and Almish rivers are forded along the route, but they present no difficulty.

Except for the crossing of the Arghandab as mentioned above, this route is open throughout the year.

Camping ground.—For 1 infantry brigade with proportion of divisional troops at all intermediate stages except at stage 4, where there is only sufficient camping space for 2 or 3 battalions.

Water.—For a division at stages 3, 4, 8, and 9, and for at least

Supplies.—Unground wheat and barley in varying quantities at all intermediate stages. The Dahla district, traversed between stages 4 and 8, is reported capable of supporting a force of 4,000 men for 2 or 3 months. Anywhere in the last two stages, in which the country is irrigated by the main Patab canal, supplies for a division for one week could easily be collected within 2 or 3 days.

| No. of stage and total dis- tance. | | DETAI | LS. | |
|------------------------------------|---------------|-------|---------------------------|--|
| 1 7 m. | KALA JUMA DIN | 7 m. | Camel road for wheeled | |

Leaving Kalat-i-Ghilzai the road leads due W., and ascends on to a range of downs; at 3 miles it gradually veers N.W., at 5 and 6 miles two deep nalas are crossed, which would require ramping to be passable for wheeled artillery.

At 7 miles Kala Juma Din.

Camping ground.—For 1 infantry brigade with proportion of divisional troops N. of the road.

Water.—For the above force from a stream.

Fuel.—Scarce.

Fodder.—A few hundred maunds bhusa procurable from 5 adjacent villages; good camel grazing.

Supplies.—A few hundred maunds of unground wheat and barley from the villages mentioned.

2 TAKIR .. 8m. 4f. Camel road passable for wheeled artillery.

General direction N.W. The road runs over 2 broad plains

Fuel.—A fair supply of firewood procurable.

Fodder.—Bhusa to a large extent from the numerous villages in the vicinity; excellent camel grazing; in the winter powindahs bring a large number of camels to graze in this vicinity.

Supplies.—Unground wheat, barley, and jowar to a large extent from the villages mentioned; large flocks of sheep ordinarily obtainable; also about 400 to 500 bullocks.

3 SEHLUM .. 12m. 4f. Camel road passable (4,561'). for wheeled artillery.

General direction W. Road passes over a steep, stony kotal, which can be partially avoided by a detour to the right of about 1½ miles; it then descends by a series of gentle undulations to Mukrak reached at 7 miles, passes over a low hill, and again descends to Sehlum on left bank of Arghandab; this march is difficult for artillery owing to its sharp ascents and descents, but is not impracticable; another road to Sehlum runs parallel to and S. of this through the Takhum valley, but it is even more difficult for artillery, and is 15 miles long. At Sehlum there is a ford across the Arghandab; the stream here has an average width of 30× and is ordinarily 2′ 6″ deep.

Camping ground.—For about 1 infantry brigade with proportion of divisional troops on a site close to the river S. of the village; this camp is very wet after rain; alternative camp about the same size, but always dry, on the opposite side of the river.

Water.—For a division from the Arghandab.

Fuel.—Scarce.

Fodder.—Bhusa to some considerable extent from the surrounding villages; khasil for the horses of cavalry brigade daily during March and April; good camel grazing.

Gumpling. In 1990 it was calculated that from the adjacent

Leaving Sehlum the road leads due S., and temporarily leaves the Arghandab river. At 1 and 3 miles the Takır and Takhum rivers respectively are forded; no difficulty. The road then passes over a low, easy kotal on to a plain from 2 to 3 miles broad and gradually changes its direction to due W. At 7 miles the Arghasu stream is crossed, and the road now follows its left bank to Arghasu, a group of 5 small villages, situated in a narrow gorge between high, overhanging rocks, about 1 mile from the Arghandab.

Camping ground.—Probably only for 2 or 3 battalions on a narrow and confined site.

Water.—For a division; the troops would obtain their water from the Arghasu and animals would be watered at the Arghandab 1 mile distant.

Fuel.—No details.

Fodder.—Good camel grazing.

Supplies.—Negligible.

From Arghasu a road runs S. $vi\hat{a}$ Bori to Kandahar; it is considerably shorter than the Arghandab route, but is impracticable for laden camels.

Another route from Sehlum to Arghasu by the right bank crosses the river at Sehlum, and, passing over some low hills, enters and crosses the Shaikhan valley; thence over a high, steep kotal into the Daroshak valley, whence it again rises up an extremely steep ascent, and passing along the side of a hill, meets the Arghasu-Tari road half mile beyond the ford; it is a mere mountain track (impracticable for camels) along which cavalry might, if necessary, pass in single file. The distance is about it miles.

5 CHINARTU .. 15 m. Camel road. (4,366').

53m. 4f.

Leaving Arghasu the road gradually descends to the river

the river and overhanging rocks, 3 furlongs long, leads to Tari, reached at 6 miles, where there is a camping ground; this path is practicable for cavalry in single file, mules and ponies, but not for camels, which have to cross the river again \(\frac{1}{4}\) mile further down; both crossings fairly easy.

Once the Argandab is crossed the road enters the Karwai sub-division of the celebrated Dahla district of the Kandahar division. It was calculated in 1880 that the Dahla district was capable of supporting a force of 4,000 men for 2 or 3 months, if broken up into detachments.

The road has roughly run due W. to this point, but it now bends sharply northwards and leads up the Karwai stream, at 9 miles it turns S.W. from the stream, crosses the Sar-i-Ab plain and descends to the Chinartu valley. At 15 miles a series of Ghilzai villages known jointly as Chinartu about 5 miles N. of the Arghandab.

Camping ground.—For about 1 infantry brigade with proportion of divisional troops.

Water.—For the above force from the Chinartu stream. Fuel.—Scarce.

Fodder.—Bhusa to some extent from the Chinartu villages; good camel grazing.

Supplies.—A few hundred maunds unground wheat and barley ordinarily available. From Chinartu onwards to Kandahar; bullocks for carriages become scarce, and donkeys are obtained instead.

6 BAGHTU .. 12m. 4f. Camel road.
----- (4,423').

General direction S.W. The road leads over a series of low, barren hills and is stony and difficult. At about 12 miles the Baghtu river is forded; no difficulty. At $12\frac{1}{2}$ miles Baghtu (100 houses), inhabitants Popalzais and Alikozais.

7 ALMISH .. 12 m. Camel road.

78 m.

General direction S. W. The road now winds through some comparatively high hills. At 7 miles the Uian river, a tributary of the Arghandab, is forded; no difficulty. On the right bank is a camping ground for 2 or 3 battalions, near the villages of Muhammad Riza and Din Muhammad from which a few supplies are procurable. At about 11 miles, the Almish river, another tributary of the Arghandab, is crossed. At 12 miles the camping ground known as Almish, near the Alizai village of Kara Mulla.

Camping ground.—For about 1 infantry brigade with proportion of divisional troops.

Water.—For the above force from the Almish stream.

Fuel.—Scarc

Fodder.—
Supplies.—

Bhusa and unground grain to a moderate extent obtainable; good camel grazing.

8 SOZNAI .. 10 m. Camel road,

88 m.

General direction S.W. An excellent road throughout; country generally open with a few low hills. At 9¾ miles cross the Soznai nala, banks steep. At 10 miles the group of villages known as Soznai, on the right bank of the Arghandab.

Camping ground.—For 1 infantry brigade with proportion of divisional troops.

Water.—For a division from the Arghandab.

Fuel.—Scarce.

Fodder.—Khasil for the horses of at least a cavalry regiment

9 SHAKCHALA .. 9 m. Camel road.

97 m.

General direction nearly due S. Leaving Soznai the road crosses the Arghandab river at Khwaja Mulk, 1 mile from camp; the river here during September and October 1880 flowed in two streams, each about $40 \times$ to $50 \times$ wide, and deep; the river bed is about & mile wide; the Arghandab at Soznai is reported to be ordinarily fordable, with an average depth of from 2' to 3' of water, but it is known that the river here is sometimes impassable for a fortnight at a time during floods, which are of frequent occurrence in the spring. The road now follows the left bank of the Arghandab, and it is here that the canal system of the Kandahar district proper commences, the main canal known as the Patab canal lying between the road and the river. The country consequently throughout this stage is highly irrigated, and troops would be confined mainly to the road. Continuous gardens of fig, grape, peach, plum, apricot, and pomegranate are passed along the road, and there are numerous villages along the banks of the river and canal, the most important being Miranjan and Sardeh passed at 3 and 5 miles, respectively. At Sardeh there is a ford across the Arghandab, leading to Shuhin on the right bank and the Kandahar-Khakrez road. At 9 miles Shakchala (200 houses) which is in the Kariajat or home district of Kandahar.

Camping ground.—No details; owing to the extensive caltivation, it is probable that there would be only space for I infantry brigade with proportion of divisional troops, several units of which would have to encamp in the fields.

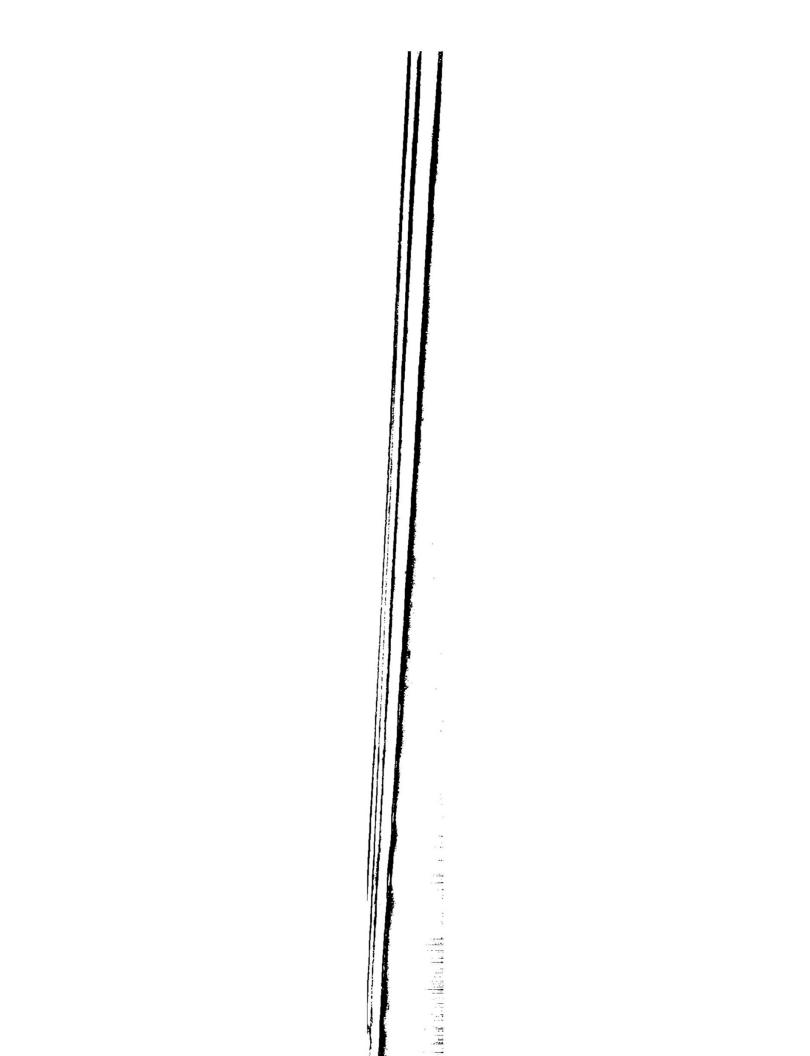
Water.—For a division and more from the Arghandab. Fuel.—Scarce.

Fodder.—) In this fertile and highly-irrigated country, all Supplies.—) supplies for a division for at least a week.

The road continues parallel to the river and canal banks direction S.W., for about 2 miles where the village of Baba Wali is reached; here there is a ford leading to Tabin on the right bank. At Baba Wali the road turns at right angles S.E., leaves the river and passing over the Baba Wali kotal enters on the Kandahar plain. The following is a description of the Arghandab river in the Mizan district, written in 1880:—

"The Arghandab river in the Mizan district has in ordinary times an average breadth of about 30', a rapid stream of 4 miles an hour, and a depth of from 3' to 6'. It widens considerably, as it descends towards Kandahar. During the melting of the snows and after heavy rains it rises rapidly and becomes impassable, and towards the latter end of the hot weather it can be forded at almost any spot. Fish abound in it, the commonest sort being a species of barbel, not unlike the Kashmir trout. Like the rest of Southern Afghanistan, there is a curious absence of trees in both these districts. The only ones to be seen are a few mulberries and willows in the valleys, a few wild almonds on the sides of the hills, and an occasional solitary tree on the ridges of the highest, most inaccessible crags, said to be a species of pistachio. country on either side of this river is wild and mountainous, so much so that, except at the juncture of the numerous small streams which run into it, banks are unapproachable, until it enters the Dahla district, when the valley gradually opens out, and from Uian downwards the country, more especially on the right bank, is open, cultivated and dotted with villages."

Vide Route 12, stage 6.



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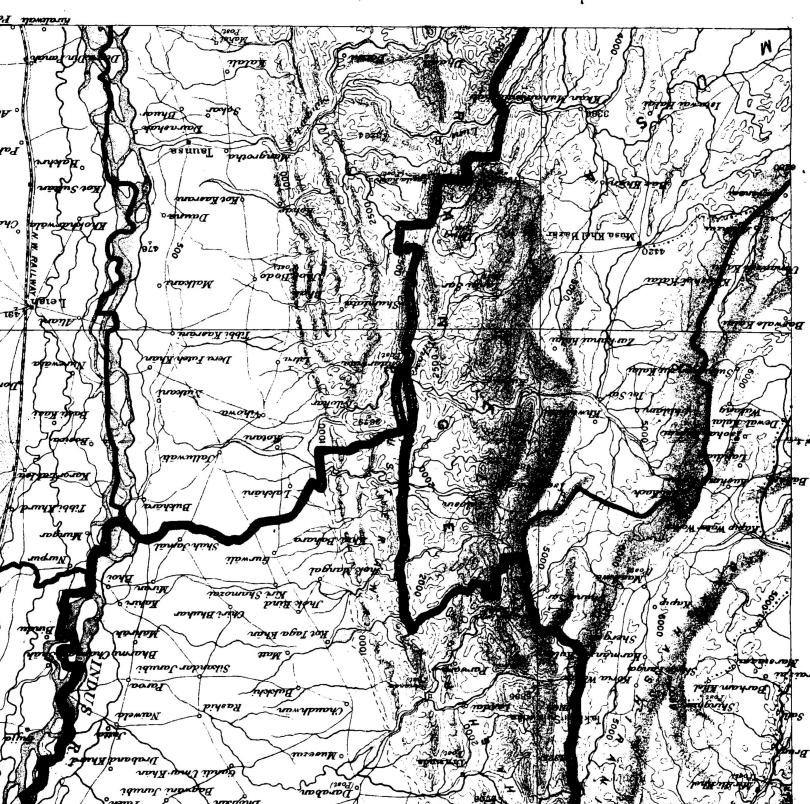
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